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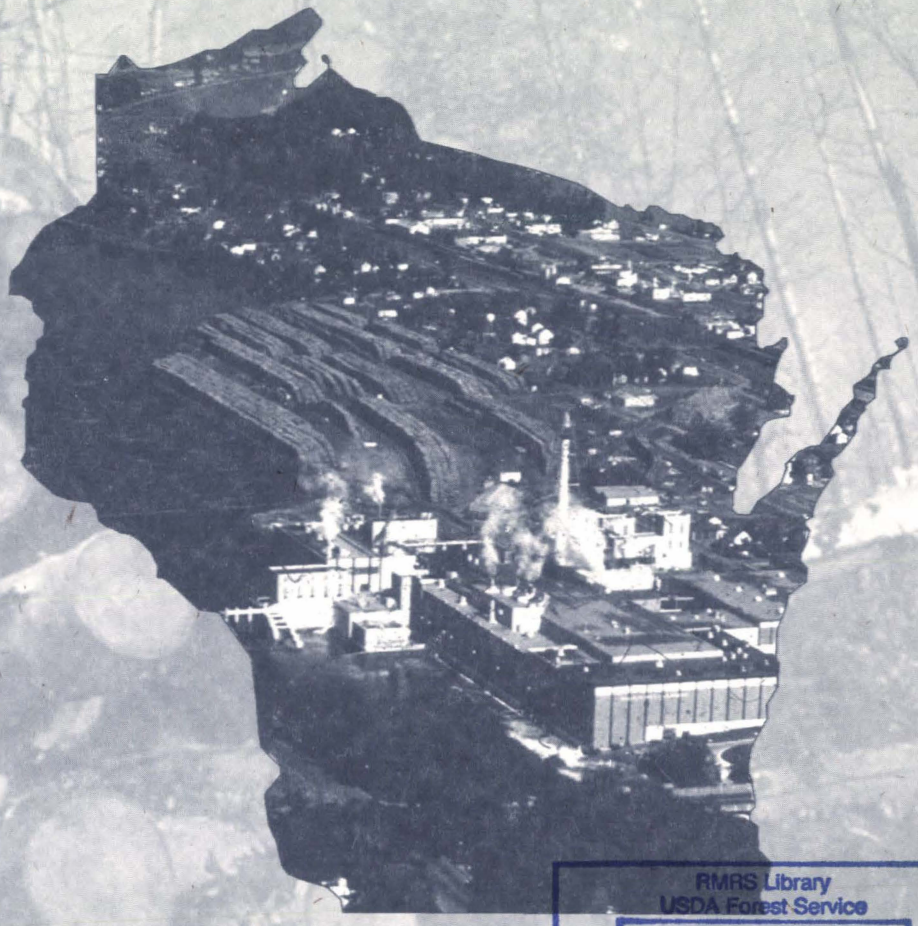
Wisconsin Timber Industry—An Assessment of Timber Product Output and Use, 1999

William H. Reading, IV and James W. Whipple



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FOREWORD

This bulletin reports findings of a survey of all primary wood-using mills in Wisconsin in 1999 and details the industry's size and composition, its use of roundwood, and its generation and disposition of wood residues. Such detailed information is necessary for intelligent planning and decisionmaking in wood procurement, forest resource management, forest industry development, and forest research.

Special thanks are given to the primary wood-using firms that responded to the survey and to the Wisconsin Department of Natural Resources for canvassing the respondents. Their cooperation is greatly appreciated.

All volumes are reported in product-specific standard units and/or cubic feet. Volumes reported by mills in nonstandard units were converted to standard units using regional conversion factors. Reported trends and changes in the primary wood-using industry in Wisconsin are based on comparisons with previous surveys of the State's primary wood-using industry conducted in 1981, 1986, 1988, 1990, 1994, and 1996. Row and column data of tables may not sum due to rounding, but data in each table cell are accurately displayed.

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Wisconsin Timber Industry—An Assessment of Timber Product Output and Use, 1999

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HIGHLIGHTS

PRIMARY TIMBER INDUSTRY—INDUSTRIAL ROUNDWOOD

- The number of large sawmills (mills sawing more than 5 million board feet/year) increased from 34 to 38 between 1996 and 1999 (table 1, fig. 1). At the same time, the number of medium-size sawmills (mills sawing between 1 million and 5 million board feet/year) fell from 106 to 73 (table 1, fig. 1). The number of small sawmills (mills sawing less than 1 million board feet/year) increased from 115 to 197 (table 1, fig. 1).

- In 1999, Wisconsin's primary wood-using industry processed more than 371 million cubic feet of roundwood—a decrease of 6 percent from 1996 levels (table 2, fig. 2).

- Industrial roundwood receipts by sawmills increased by 1 percent overall between 1996 and 1999 (table 2). Receipts of softwood roundwood by sawmills increased by 23 percent while hardwood receipts dropped by 2 percent.

- Industrial roundwood receipts by pulpwood mills decreased by 7 percent overall between 1996 and 1999 (table 2). Receipts of softwood roundwood decreased by 19 percent, accounting for most of the decrease. Hardwood receipts decreased by less than 1 percent.

- Hardwoods made up nearly three-quarters of the roundwood processed by the State's primary wood-using industry in 1999 (table 2). This is essentially unchanged from 1996.

- In 1999, 369.7 million cubic feet of industrial roundwood were harvested from Wisconsin forests (table 3). This figure is a slight increase from 1996 when 359.4 million cubic feet were harvested.

- Only four species groups, which accounted for 10 million cubic feet or more of harvest volume, had changes in harvest volume of ±10 percent or more between 1996 and 1999. These were jack pine (-10 percent), red pine (+13 percent), soft maple (+32 percent), and hard maple (+15 percent) (table 3). The overall increase in harvest volume for all species was 3 percent between 1996 and 1999.

- In 1999, the percentage of industrial roundwood harvested to produce saw logs and pulpwood was virtually unchanged from 1996. In fact, the harvest level has been basically stable since the 1988 survey (table 3, fig. 3).

- Seventy percent of the total industrial roundwood production was harvested from the Northeast and Northwest Units (table 3, fig. 4). A further 21 percent came from the Central Unit.

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James W. Whipple, Wood Utilization Specialist, received his B.S. in forestry from Michigan Technological University in 1964. He joined the Wisconsin Department of Natural Resources as a field forester in July 1964 and has been a Utilization Specialist since 1970.

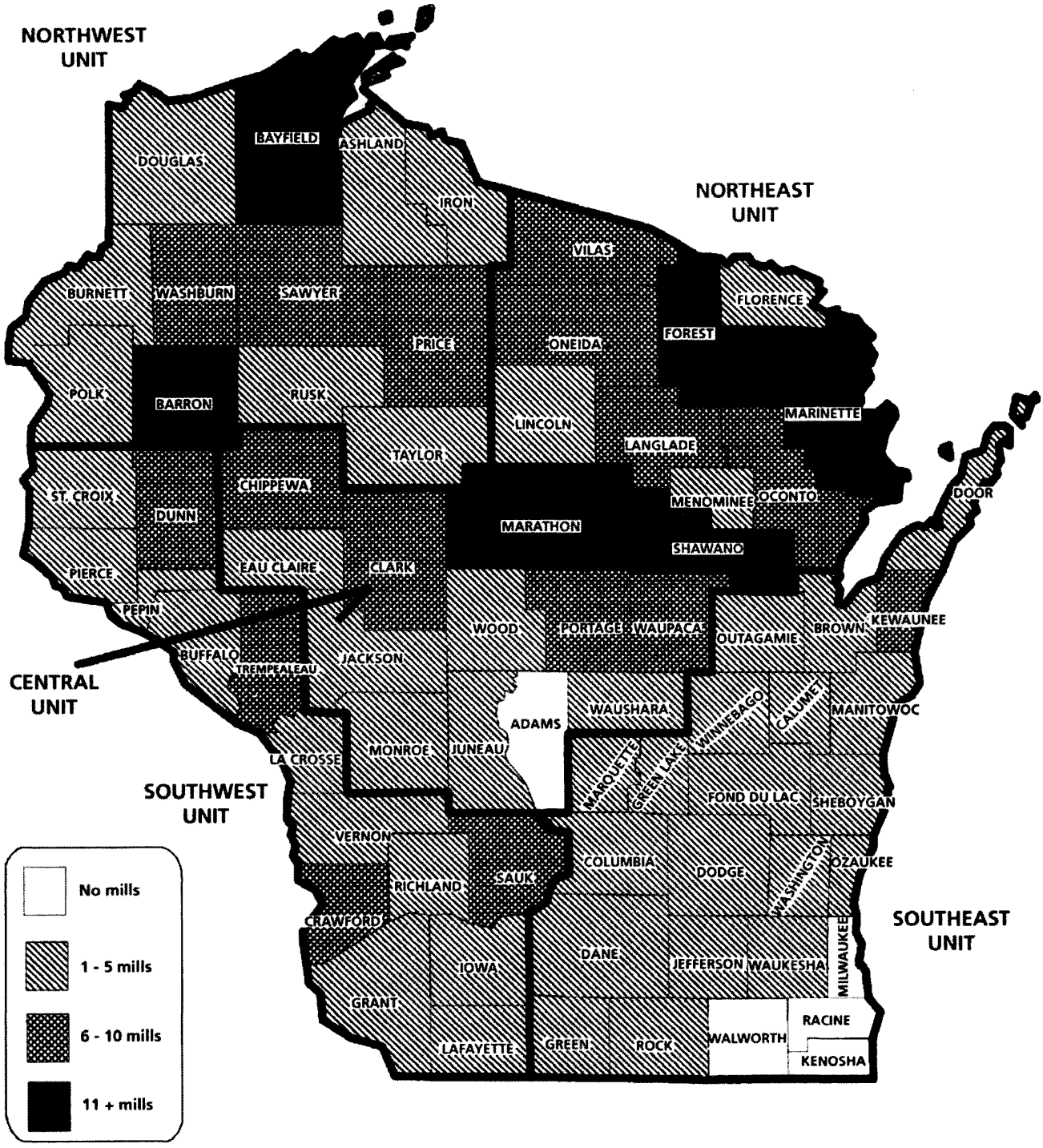

Figure 1.—*Location and number of primary wood-using mills in Wisconsin, 1999.*

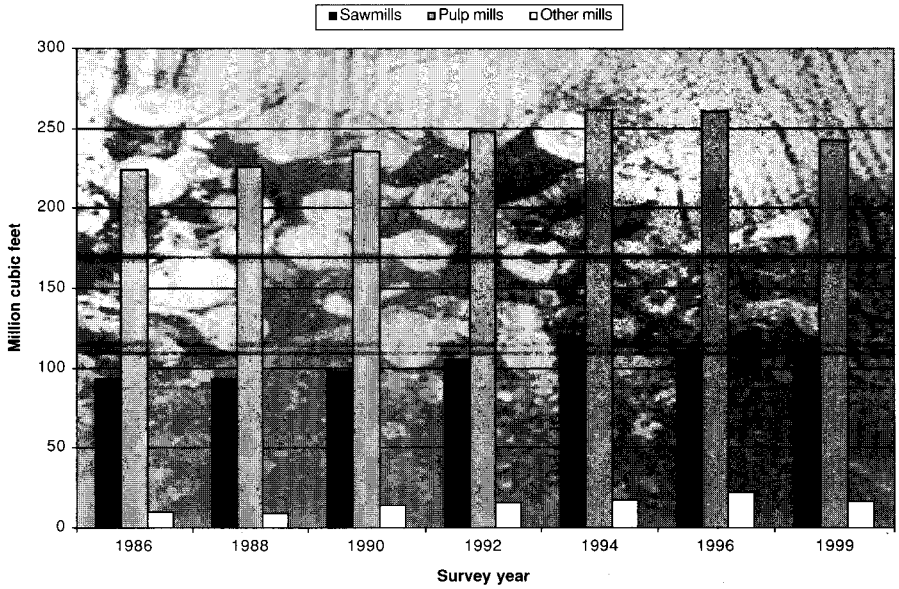

Figure 2.—*Industrial roundwood receipts by type of mill, Wisconsin, 1999.*

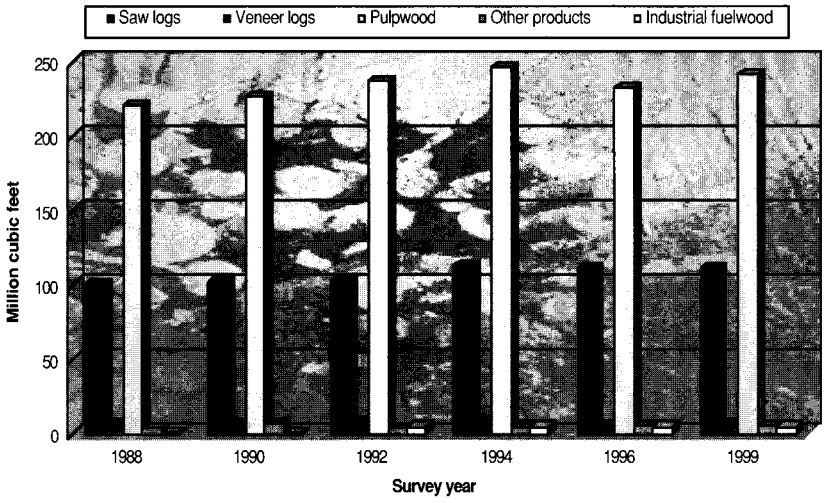

Figure 3.—*Distribution and level of industrial roundwood production, Wisconsin, 1999.*

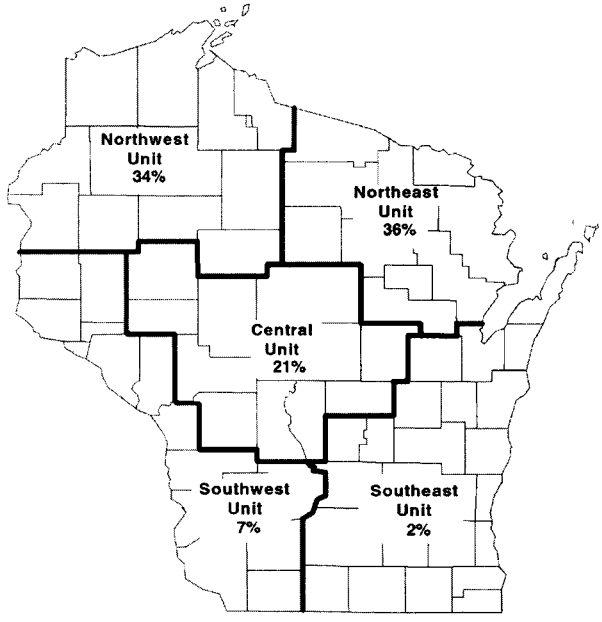

Figure 4.—*Sources of indust roundwood production by Fo Survey Unit, Wisconsin, 199*

PULPWOOD

- In 1999, Wisconsin's pulpwood production continued to fluctuate within the range of 3.0 and 3.5 million cords per year as it has since 1988 (table 4). This includes pulpwood produced from roundwood as well as mill residues from primary mills.

- Eighty-nine percent of the pulpwood produced in 1999 was produced from roundwood. The remainder came from primary mill residues (table 4).

- Aspen accounted for 36 percent of the total pulpwood production from roundwood from Wisconsin's forests in 1999 (table 4, fig. 5).

- Michigan was the largest export market for Wisconsin pulpwood roundwood and residues (table 5). Michigan received 206 thousand cords of wood material from Wisconsin in 1999. The next largest export market for Wisconsin pulpwood was Minnesota, which received just under 63 thousand cords.

- Wisconsin was a net importer of pulpwood roundwood in 1999 (fig 6). While Wisconsin's forests produced 2.9 million cords of roundwood for pulpwood (table 4), Wisconsin mills consumed 3.0 million cords of roundwood for pulpwood (table 7).

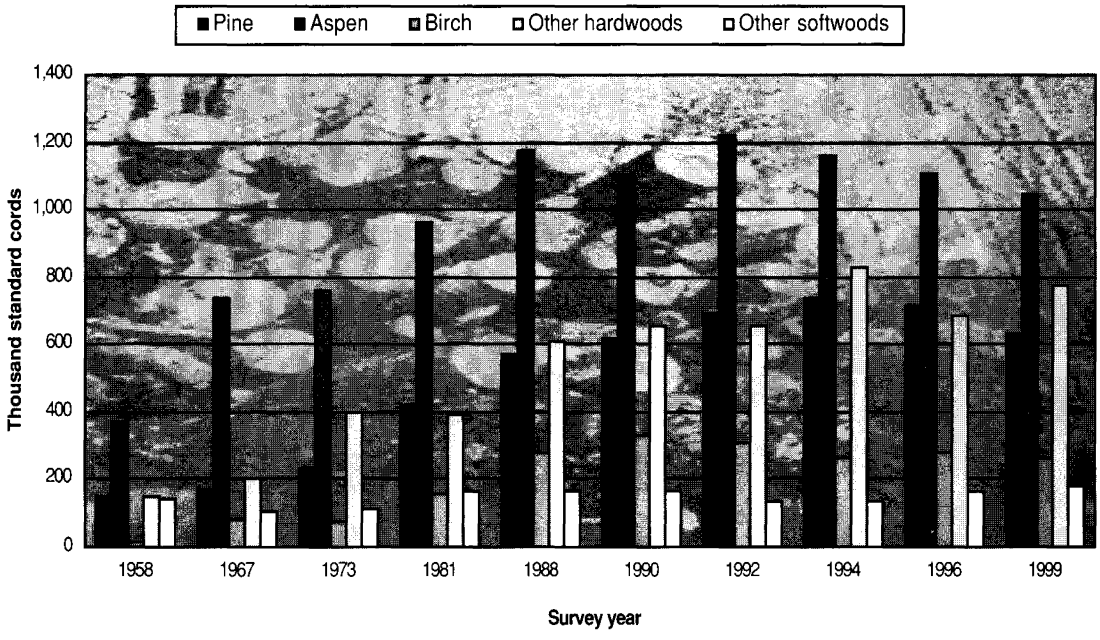

Figure 5.—*Pulpwood production from roundwood by species group and survey year, Wisconsin, 1999.*

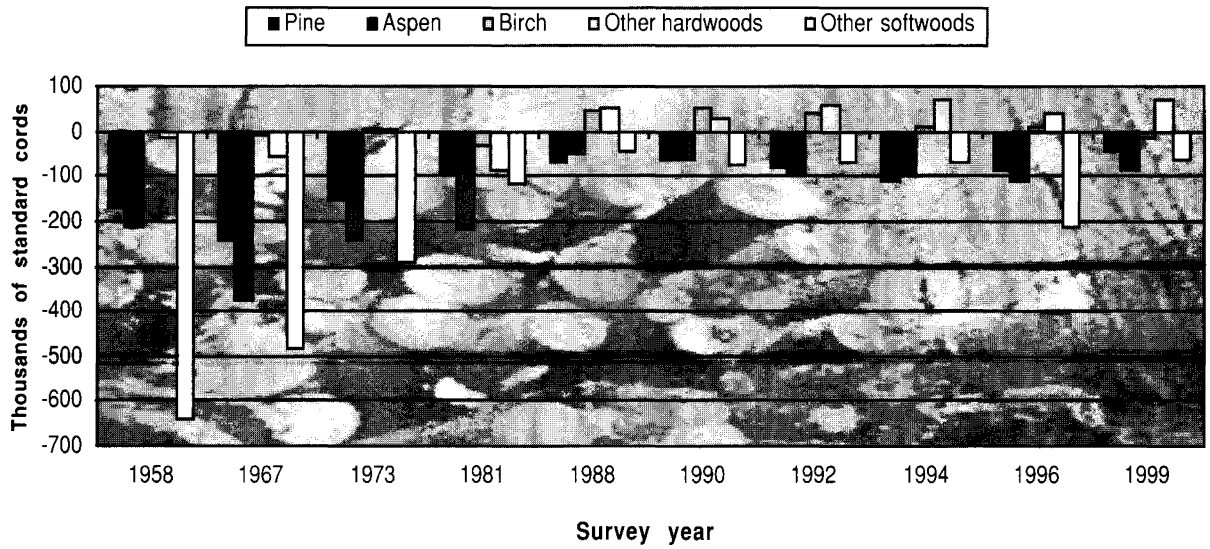

Figure 6.—*Net pulpwood exports by survey year, Wisconsin, 1999.*

SAW LOGS

- Softwood saw log production from Wisconsin forests increased by 39 percent over 1996 (table 10, fig. 7), while receipts by Wisconsin sawmills increased by 25 percent. Harvests of red pine increased by 62 percent since 1996, while mill receipts increased by 56 percent.

- Hardwood saw log production dropped by 8 percent from 1996 (table 10), while mill receipts dropped by 7 percent. The largest changes in production came from aspen (-15 percent), red oak (-11 percent), white oak (-13 percent), and basswood (-25 percent). Mill receipts of aspen fell by 14 percent, red oak fell by 12 percent, and basswood declined by 26 percent.

- Combined hardwood/softwood saw log production fell by only 0.2 percent, while mill receipts fell by 2 percent (table 10). A major shift in the softwood/hardwood production ratio—from 0.200 to 0.302 indicates a change in demand by regional mills (fig. 8). The softwood/hardwood mill receipt ratio changed from 0.167 to 0.224 indicating a similar shift in demand from Wisconsin mills (table 10).

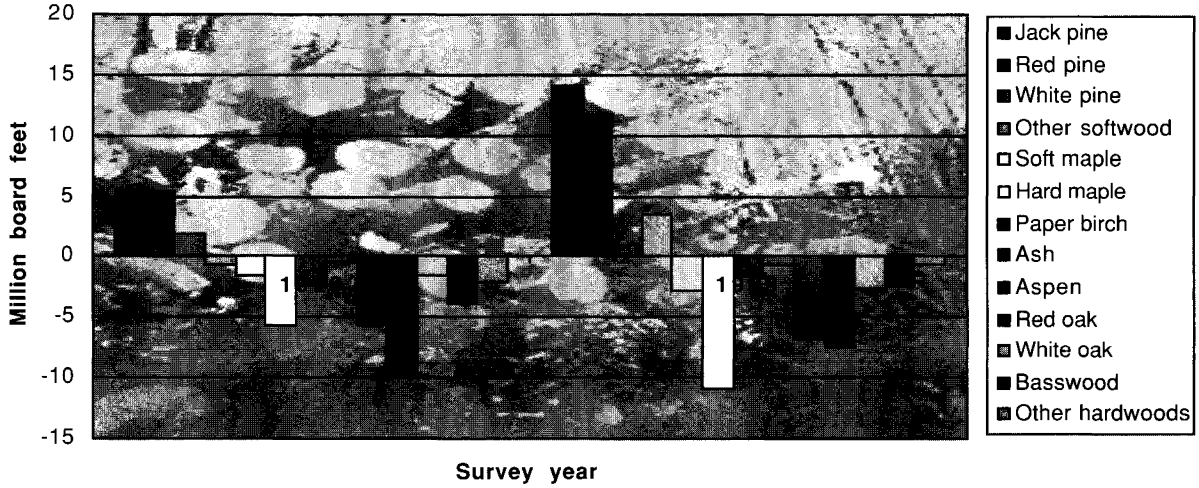

Figure 7.—*Net exports of saw logs, Wisconsin, 1999.*

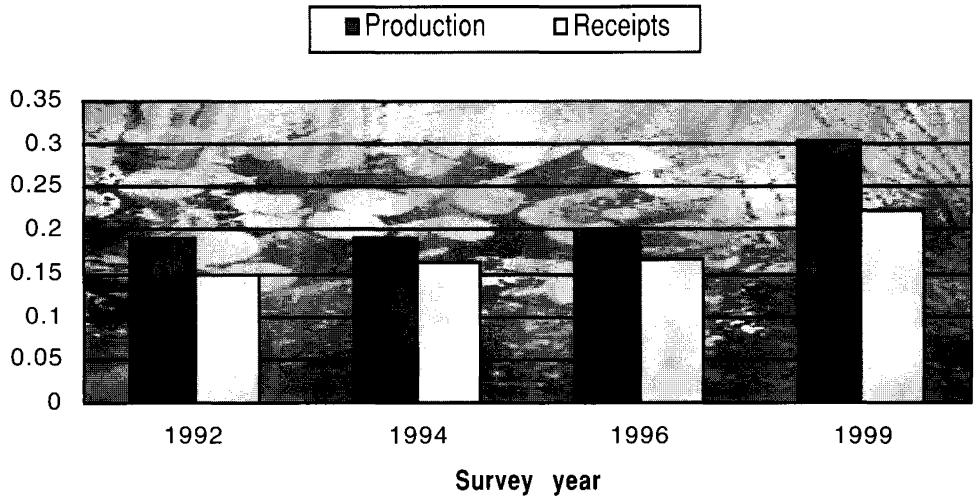

Figure 8.—*Ratio of softwood to hadwood production and receipts by survey year, Wisconsin.*

- Minnesota was the largest export market for Wisconsin softwood saw logs, while Michigan was the largest export market for hardwood saw logs (table 11). Wisconsin mills utilized 74 percent of Wisconsin's softwood saw log production and 96 percent of its hardwood saw log production. Overall, 91 percent of the saw log volume produced on Wisconsin timberlands was utilized by Wisconsin mills.

- The largest supplier of both hardwood and softwood saw logs, other than Wisconsin forests, was Michigan (table 13).

VENEER LOGS

- Veneer log roundwood production increased from 33.6 million board feet in 1996 to 42.3 million board feet (table 14). While this is a large increase (26 percent), the 1999 production total was still less than the 52 million board feet harvested in both 1992 and 1994. Receipts of veneer logs by Wisconsin mills fell by 12 percent from 1996 to 45.8 million board feet in 1999.

- Wisconsin veneer log roundwood production is strongly oriented to hardwood species, accounting for 95 percent of production (table 15).

- Only 67 percent of the veneer log roundwood volume harvested from Wisconsin forests in 1999 were destined for Wisconsin mills (table 16). Sixty-one percent of veneer log roundwood volume consumed by Wisconsin mills was harvested in Wisconsin forests (table 18).

OTHER PRODUCTS

- Wisconsin forests produced 772 thousand cubic feet of cabin logs in 1999 (table 20). White pine was the most widely harvested species followed by red pine and northern white-cedar.

- Wisconsin forests produced 749 thousand posts in 1999 (table 21). The overwhelming majority (96 percent) of these posts were produced from red pine and northern white-cedar.

TIMBER REMOVALS

- The largest categories of removals from growing stock and non-growing stock were sawtimber (39 percent), logging slash (24 percent), and poletimber (22 percent) (fig. 9). The overall distribution of timber removals from the various

components of growing stock and non-growing stock changed very little from 1996.

- The percentage of harvested growing-stock volume that was sawtimber size vs. pole size varies widely by species (table 22, fig. 10). Among softwood species, jack pine, a species commonly used for pulpwood, had the lowest sawtimber-size percentage at 43 percent. White pine and red pine, more commonly used for lumber and cabin logs, had higher percentages of harvested volume classified as sawtimber (66 percent and 75 percent, respectively).

- Among hardwood species, sawtimber vs. poletimber percentages varied more widely (table 22). For paper birch, only 29 percent of the growing stock harvested was sawtimber size. Species that are highly prized for lumber and veneers, such as oak, cherry, and black walnut, had 74 to 79 percent of their growing-stock volume harvested as sawtimber-size trees.

- The total volume of wood material harvested in 1999 for industrial roundwood was 517.2 million cubic feet (table 22). This is a slight increase from 1996 when 507.1 million cubic feet was harvested.

HARVEST RESIDUES

- One hundred forty-seven million cubic feet of harvest residues were generated by industrial roundwood harvesting in Wisconsin forests in 1999 (table 25). This is essentially unchanged from the 1996 figure.

- Seventy-nine percent of the harvest residues were from hardwood species and 21 percent were from softwood species (table 25).

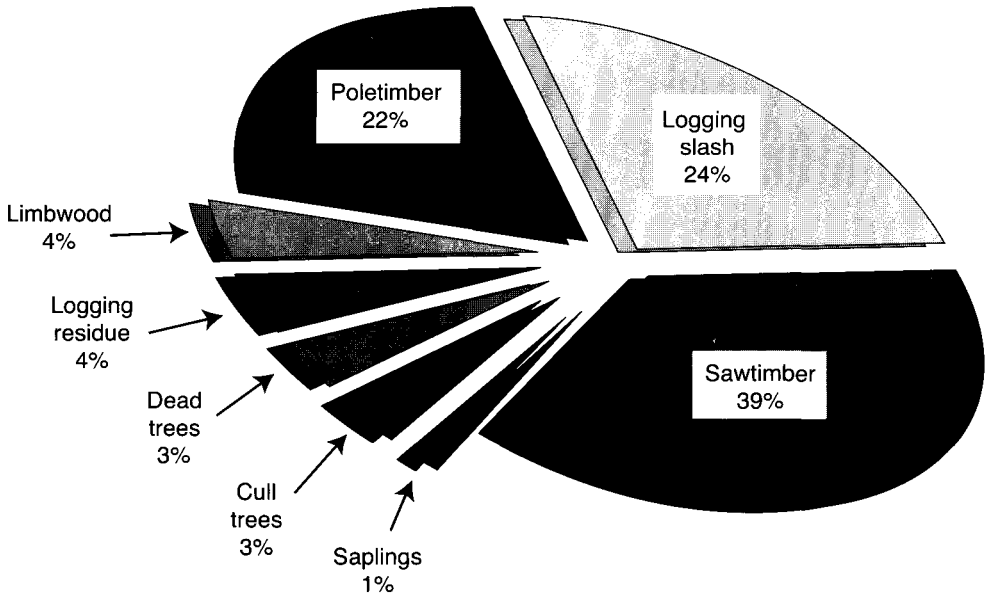

Figure 9.—*Distribution of timber removals for industrial roundwood by source of material, Wisconsin, 1999.*

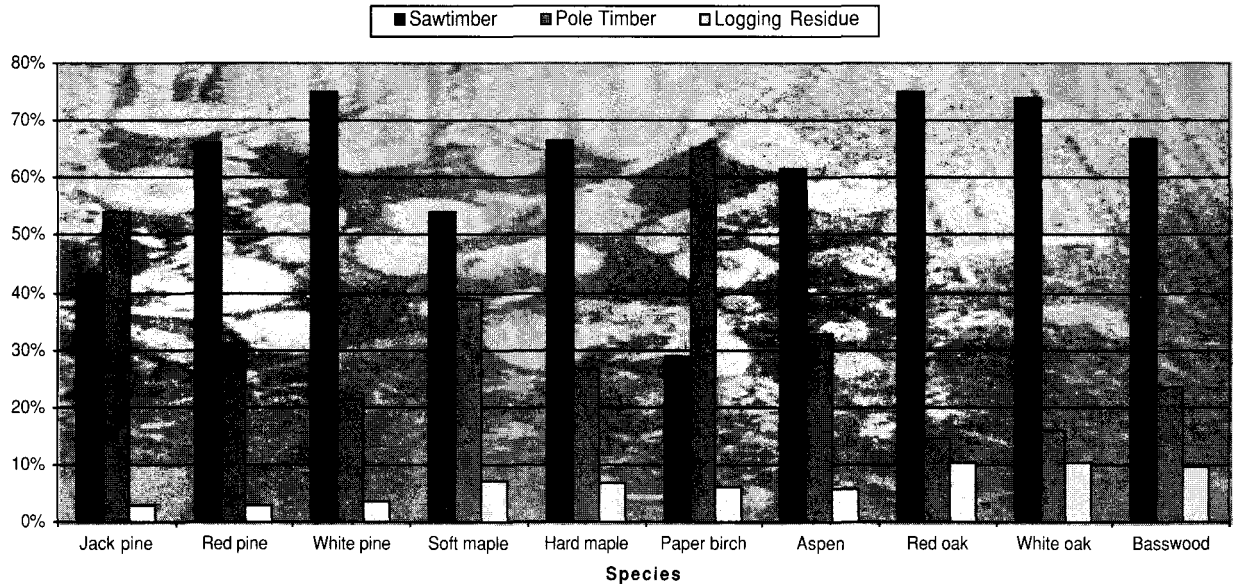

Figure 10.—*Sawtimber percentage of major species, Wisconsin, 1999.*

PRIMARY MILL RESIDUES

- Eighty-five percent of the mill residues were produced from hardwood roundwood; 15 percent came from softwood roundwood (table 25, fig. 11).
- Of softwood mill residues, 30 percent were used in producing fiber products (table 26). Of hardwood mill residues, 47 percent were used for fiber products.
- Fifty percent of softwood residues were used as industrial fuel at the mills that produced them (table 26). In contrast, only 19 percent of hardwood residues were used as industrial fuels.
- Only 2 percent of residues were not used (table 26, fig. 12).

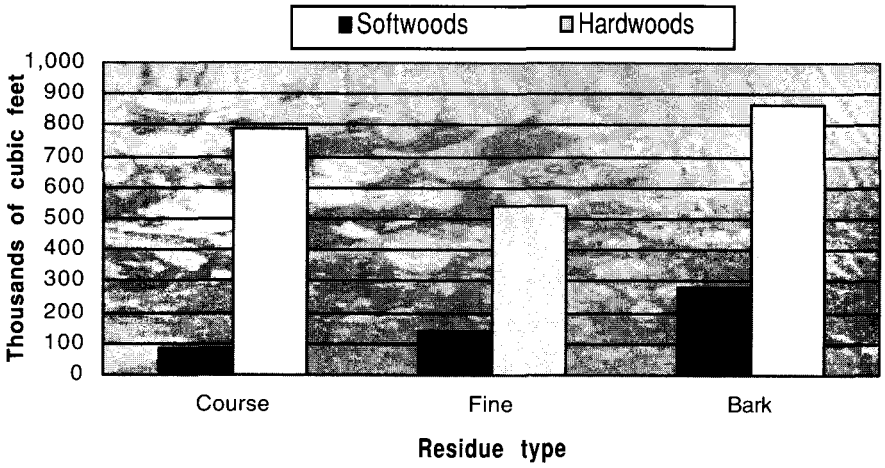

Figure 11.—*Distribution of residues generated by primary wood-using mills by type of residue and species, Wisconsin, 1999.*

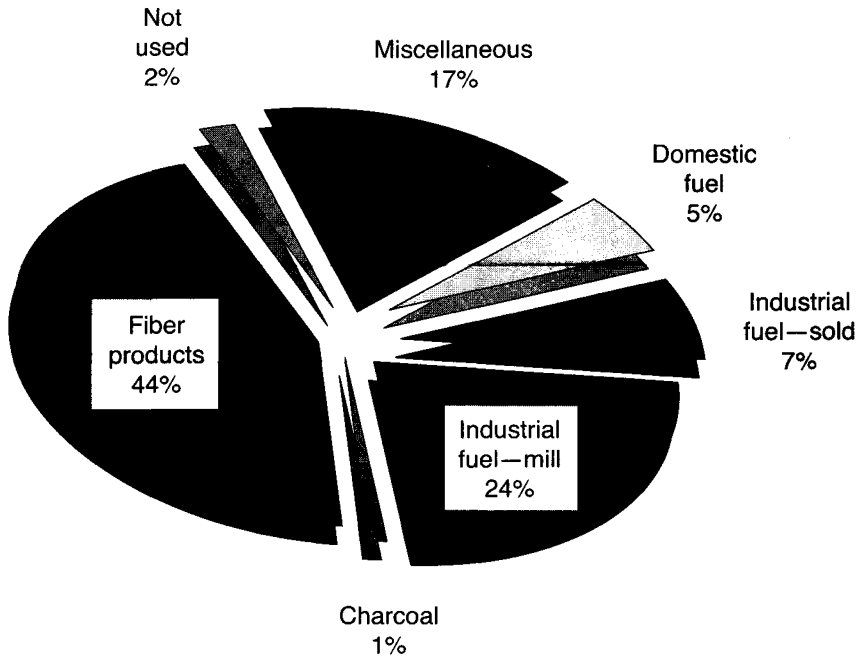

Figure 12.—*Distribution of residues generated by primary wood-using mills by method of disposal, Wisconsin, 1999.*

REGIONAL FACTS AND TRENDS

Northeast Unit

- Overall industrial roundwood production levels increased by 4 percent. Substantial increases occurred in the saw log, veneer log, and pulpwood categories. The most notable increases were in softwood saw logs (+66 percent) and hardwood pulpwood (+14 percent).
- The Northeast Unit produced 33 percent of the State's sawtimber, 37 percent of the veneer logs, 36 percent of the pulpwood, and 86 percent of the industrial fuelwood (table 3, fig. 13).
- The Northeast Unit has 33 of the sawmills that process more than 1 million board feet of saw logs per year.
- The Northeast Unit supports two board mills and two pulp mills.

Northwest Unit

- Overall industrial roundwood production levels dropped by 1 percent from 1996 to 1999.
- The Northwest Unit produced 24 percent of the sawtimber, 43 percent of the veneer logs, 39 percent of the pulpwood, and 12 percent of the industrial fuelwood (table 3, fig.13).
- The Northwest has 23 of the sawmills that process more than 1 million board feet of saw logs per year.
- The Northwest Unit supports one board mill and three pulp mills.

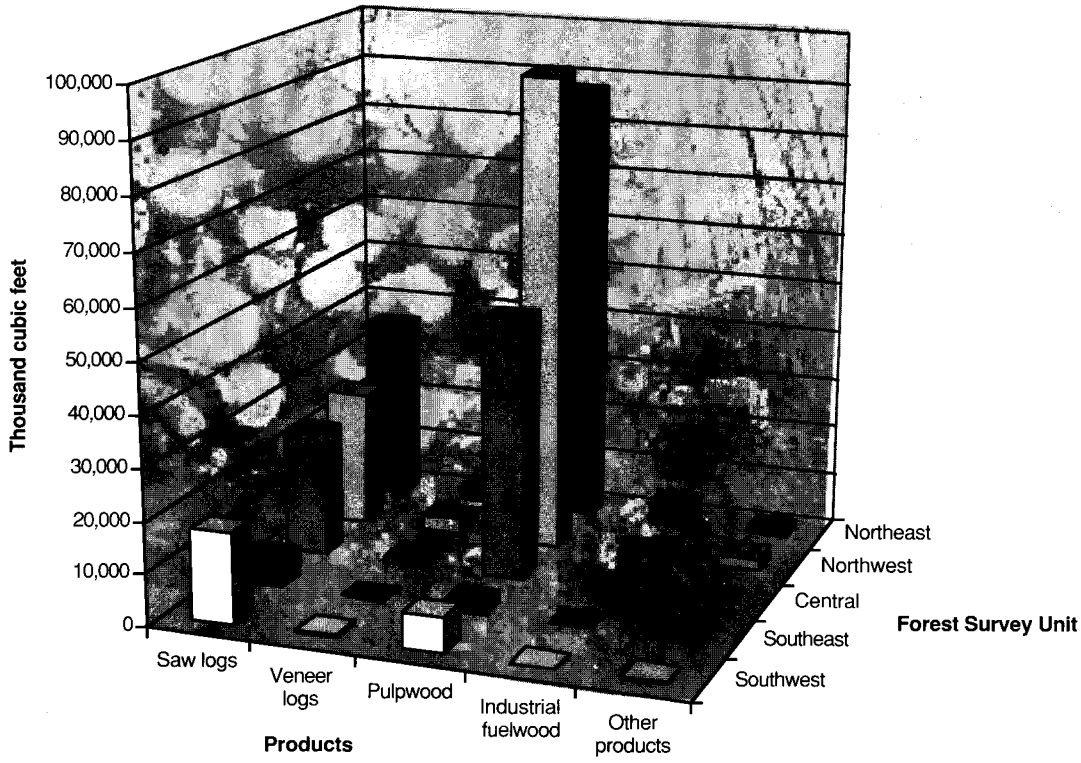

Figure 13.—*Industrial roundwood production by product and Forest Survey Unit, Wisconsin, 1999.*

Central Unit

- Overall industrial roundwood production levels increased by 9 percent. The bulk of this increase was due to increases in saw log and pulpwood production.
- The Central Unit produced 22 percent of the sawtimber, 12 percent of the veneer logs, 21 percent of the pulpwood, and 1 percent of the industrial fuelwood (table 3, fig.13).
- The Central Unit has 26 of the sawmills that process more than 1 million board feet of saw logs per year.
- The Central Unit supports one board mill and nine pulp mills.

Southeast Unit

- Overall industrial roundwood production decreased by 9 percent from 1996 to 1999, mainly because of a large drop in pulpwood production and veneer log production.
- The Southeast Unit produced 5 percent of the saw logs and less than 1 percent of the veneer logs, pulpwood, and industrial fuelwood (table 3, fig.13).
- The Southeast Unit has 27 of the sawmills that process more than 1 million board feet per year.
- The Southeast Unit supports three pulp mills.

Southwest Unit

- Overall industrial roundwood production levels dropped by 14 percent from 1996 to 1999. This was mainly due to a large drop in saw log production, which was only partially offset by an increase in pulpwood production.

- The Southwest Unit produced 16 percent of the saw logs, 8 percent of the veneer logs, 3 percent of the pulpwood, and less than 1 percent of the industrial fuelwood (table 3, fig. 13).

APPENDIX

STUDY METHODS

This study was a cooperative effort of the Wisconsin Department of Natural Resources (WiDNR) and the North Central Research Station (NCRS). Using mail questionnaires supplied by NCRS and designed to determine the size and composition of Wisconsin's primary wood-using industry, its use of roundwood, and its generation and disposition of wood residues, the WiDNR canvassed all primary wood-using mills within the State. The WiDNR then followed up with non-responding mills through additional mailings, telephone calls, and personal contacts until it achieved a 100-percent response. Completed questionnaires were sent to NCRS for editing and processing.

As part of data editing and processing, all industrial roundwood volumes reported on the questionnaires were converted to standard units of measure using regional conversion factors. Timber removals by source of material and harvest residues generated during logging were estimated from standard product volumes using factors developed from logging utilization studies previously conducted by NCRS. Finalized data on Wisconsin's industrial roundwood receipts were loaded into a regional timber removals database and supplemented with data on out-of-State uses of Wisconsin's roundwood to provide a complete assessment of Wisconsin's timber product output.

DEFINITION OF TERMS

Board foot

Unit of measure applied to roundwood. It relates to lumber that is 1 foot long, 1 foot wide, and 1 inch thick (or its equivalent).

Bolt

A short log no more than 8 feet long, to be sawn for lumber, peeled or sliced for veneer, shaved for excelsior, or converted into shingles, cooperage stock, dimension stock, blocks, blanks, etc.

Central stem

The portion of a tree between a 1-foot stump and the minimum 4.0-inch top diameter outside bark or thepoint where the central stem breaks into limbs.

Coarse mill residue

Wood residue suitable for chipping such as slabs, edgings, and veneer cores.

Commercial species

Tree species presently or prospectively suitable for industrial wood products. (Note: Excludes species of typically small size, poor form, or inferior quality such as hophornbeam, Osage-orange, and redbud.)

Cull removals

Net volume of rough and rotten trees, plus the net volume in sections of the central stem of growing-stock trees that do not meet regional merchantability standards, harvested for industrial roundwood products.

Dead removals

Net volume of dead trees harvested for industrial roundwood products.

Diameter at breast height (d.b.h.)

The outside bark diameter at 4.5 feet above the forest floor on the uphill side of the tree. For determining breast height, the forest floor includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

Fine mill residue

Wood residue not suitable for chipping such as sawdust and veneer clippings.

Forest land

Land at least 10 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. (Note: Stocking is measured by comparing specified standards with basal area and /or number of trees, age or size, and spacing.) The minimum area for classification of forest land is 1 acre. Roadside, streamside, and shelterbelt strips of timber must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails, streams or other bodies of water, or clearings in forest areas shall be classed as forest if less than 120 feet wide.

Growing-stock removals

The growing-stock volume removed from the timberland inventory by harvesting industrial roundwood products. (Note: Includes sawtimber removals, poletimber removals, and logging residues.)

Growing-stock tree

A live timberland tree of commercial species that meets specified standards of size, quality, and merchantability. (Note: Excludes rough, rotten, and dead trees.)

Growing-stock volume

Net volume of growing-stock trees 5.0 inches d.b.h. and over, from 1 foot above the ground to a minimum 4.0-inch top diameter outside bark of the central stem or to the point where the central stem breaks into limbs.

Hardwoods

Dicotyledonous trees, usually broad-leaved and deciduous.

Harvest residues

Total net volume of unused portions of trees cut or killed by logging. (Note: Includes both logging residues and logging slash.)

Industrial fuelwood

A roundwood product, with or without bark, used to generate energy at manufacturing facilities and schools, correctional institutions, or electric generating plants.

Industrial roundwood exports

The quantity of industrial roundwood harvested in a geographical area and transported to other geographical areas.

Industrial roundwood imports

The quantity of industrial roundwood received from other geographical areas.

Industrial roundwood products

Saw logs, pulpwood, veneer logs, poles, commercial posts, pilings, cooperage logs, particleboard bolts, shaving bolts, lath bolts, charcoal bolts, and chips from roundwood used for pulp or board products.

Industrial roundwood production

The quantity of industrial roundwood harvested in a geographic area plus all industrial roundwood exported to other geographical areas.

Industrial roundwood receipts

The quantity of industrial roundwood received by commercial mills in a geographic area plus all industrial roundwood imported from other geographical areas.

Industrial roundwood retained

The quantity of industrial roundwood harvested from and processed by commercial mills within the same geographical area.

International 1/4-inch rule

A log rule or formula for estimating the board foot volume of logs, allowing 1/2 inch of taper for each 4-foot length. The rule appears in a number of forms that allow for kerf. In this form, 1/4 inch of kerf is assumed. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Limbwood removals

Net volume of all portions of a tree other than the central stem (including forks, large limbs, tops, and stumps) harvested for industrial roundwood products.

Logging residue

Net volume of unused portions of the merchantable central stem of growing-stock trees cut or killed by logging.

Logging slash

Net volume of unused portions of the unmerchantable (non-growing stock) sections of trees cut or killed by logging.

Merchantable sections

Sections of the central stem of growing-stock trees that meet either pulpwood or saw log specifications.

Net volume

Gross volume less deductions for rot, sweep, or other defects affecting use for roundwood products.

Noncommercial species

Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial roundwood products. Classified in volume tables as rough trees.

Nonforest land

Land that has never supported forests, and land formerly forested where use for timber management is precluded by development for other uses. (Note: Includes areas used for crops, active Christmas tree plantations, orchards, nurseries, improved pasture, residential areas, city parks, improved roads of any width and adjoining clearings, powerline clearings of any width, and 1- to 39.9-acre areas of water classified by the Bureau of the Census as land.) If intermingled in forest areas, unimproved roads and nonforest strips must be more than 120 feet wide and more than 1 acre to qualify as nonforest land.

Nonforest land removals

Net volume of trees on nonforest lands harvested for industrial roundwood products.

Poletimber

A growing-stock tree at least 5.0 inches d.b.h. but smaller than sawtimber size (9.0 inches d.b.h. for softwoods, 11.0 inches d.b.h. for hardwoods).

Poletimber removals

Net volume in the merchantable central stem of poletimber trees harvested for industrial roundwood products.

Primary wood-using mills

Mills receiving roundwood or chips from roundwood for processing into products such as lumber, veneer, and pulp.

Primary wood-using mill residue

Wood materials (coarse and fine) and bark generated at manufacturing plants that process industrial roundwood into principal products. These residues include wood products (byproducts) obtained incidental to production of principal products and wood materials not utilized for some product.

Rotten tree

A tree that does not meet regional merchantability standards because of excessive unsound cull.

Rough tree

A tree that does not meet regional merchantability standards because of excessive sound cull. Includes noncommercial tree species.

Roundwood

Logs, bolts, or other round sections cut from trees (including chips from roundwood).

Sapling

A live tree between 1.0 and 5.0 inches d.b.h.

Sapling removals

Net volume in saplings harvested for industrial roundwood products.

Saw log

A log meeting minimum standards of diameter, length, and defect, sound and straight, and with a minimum diameter outside bark of 7.0 inches for softwoods and 9.0 inches for hardwoods, or other combinations of size and defect specified by regional standards.

Saw log portion

That portion of the central stem of sawtimber trees between the stump and the saw log top.

Saw log top

The point on the central stem of sawtimber trees above which a saw log cannot be produced. The minimum saw log top is 7.0 inches diameter outside bark for softwoods and 9.0 inches diameter outside bark for hardwoods.

Sawtimber tree

A growing-stock tree containing at least a 12-foot saw log or two noncontiguous saw logs 8 feet or longer and meeting regional specifications for freedom from defect. Softwoods must be at least 9.0 inches d.b.h. and hardwoods must be at least 11.0 inches d.b.h.

Sawtimber volume

Net volume in the saw log portion of sawtimber trees.

Softwoods

Coniferous trees, usually evergreen, having needles or scale-like leaves.

Timber product output

The volume of roundwood products produced from an area's forests.

Timberland

Forest land that is producing, or is capable of producing, in excess of 20 cubic feet per acre per year of industrial roundwood products under natural conditions, is not withdrawn from timber utilization by statute or administrative regulation, and is not associated with urban or rural development.

Tree

A woody plant usually having one or more perennial stems, a more or less definitely formed crown of foliage, and a height of at least 12 feet at maturity.

Upper stem portion

That portion of the central stem of sawtimber trees between the saw log top and the minimum top diameter of 4.0 inches outside bark, or to the point where the central stem breaks into limbs.

Veneer log

A log or bolt used in the production of plywood, finished panels, containers, or veneer sheets, both rotary cut and sliced.

COMMON AND SCIENTIFIC NAMES OF TREE SPECIES MENTIONED IN THIS REPORT

SOFTWOODS

Pine
- Jack pine ..... *Pinus banksiana*
- Red pine ..... *Pinus resinosa*
- Eastern white pine ..... *Pinus strobus*

Spruce
- White spruce ..... *Picea glauca*
- Black spruce ..... *Picea mariana*

Balsam fir ..... *Abies balsamea*

Eastern hemlock ..... *Tsuga canadensis*

Tamarack ..... *Larix laricina*

Northern white-cedar ..... *Thuja occidentalis*

Eastern redcedar ..... *Juniperis virginiana*

HARDWOODS

White oak
- White oak ..... *Quercus alba*
- Bur oak ..... *Quercus macrocarpa*
- Chinkapin oak ..... *Quercus muehlenbergii*
- Swamp white oak ..... *Quercus bicolor*

Red oak
- Northern red oak ..... *Quercus rubra*
- Black oak ..... *Quercus velutina*
- Northern pin oak ..... *Quercus ellipsoidalis*

Hickory
- Bitternut hickory ..... *Carya cordiformis*
- Pignut hickory ..... *Carya glabra*
- Shagbark hickory ..... *Carya ovata*

Birch
- Paper birch ..... *Betula papyrifera*
- Yellow birch ..... *Betula alleghaniensis*

Hard maple	
Black maple	*Acer nigrum*
Sugar maple	*Acer saccharum*
Soft maple	
Red maple	*Acer rubrum*
Silver maple	*Acer saccharinum*
American beech	*Fagus grandifolia*
Ash	
Black ash	*Fraxinus nigra*
White ash	*Fraxinus americana*
Green ash	*Fraxinus pennsylvanica*
Balsam poplar	*Populus balsamifera*
Aspen	
Bigtooth aspen	*Populus grandidentata*
Quaking aspen	*Populus tremuloides*
Eastern cottonwood	*Populus deltoides*
American basswood	*Tilia americana*
Black walnut	*Juglans nigra*
Elm	
American elm	*Ulmus americana*
Rock elm	*Ulmus thomasii*
Slippery elm	*Ulmus rubra*
Other hardwoods	
Northern catalpa	*Catalpa speciosa*
Black cherry	*Prunus serotina*
River birch	*Betula nigra*
Black locust	*Robinia pseudoacacia*
Honeylocust	*Gleditsia triacanthos*
Red mulberry	*Morus rubra*
Butternut	*Juglans cinerea*
Black willow	*Salix nigra*
Boxelder	*Acer negundo*
Hackberry	*Celtis occidentalis*

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TABLES

Table 1.--Number of active primary wood-using mills in Wisconsin, 1986, 1988, 1990, 1992, 1994, 1996, 1999

Kind of mill	1986	1988	1990	1992	1994	1996	1999
Sawmills							
Large [1]	21	32	27	33	39	34	38
Medium [2]	103	92	102	106	111	106	73
Small [3]	142	131	139	114	118	115	197
Total	266	255	268	253	268	255	308
Pulp mills [4]	21	22	22	21	21	22	21
Veneer mills	15	17	17	12	12	15	13
Other mills	15	15	16	25	29	30	28
Total	51	54	55	58	62	67	62
All mills	317	309	323	311	330	322	370

[1] *Annual lumber production over 5 million board feet.*

[2] *Annual lumber production from 1 million to 5 million board feet.*

[3] *Annual lumber production less than 1 million board feet.*

[4] *Includes particleboard plants: OSB, waferboard, etc.*

Table 2.-- Industrial roundwood receipts by type of mill in Wisconsin, 1986, 1988, 1990, 1992, 1994, 1996, 1999

(In million cubic feet)

Kind of mill	1986	1988	1990	1992	1994	1996	1999
All Species							
Sawmills	93.2	93.4	97.8	105.7	117.4	111.3	112.8
Pulp mills [1]	224.0	226.1	235.7	248.1	261.4	260.6	242.1
Other mills [2]	9.7	9.2	14.0	15.4	17.2	21.9	16.3
Total	326.9	328.7	347.5	369.2	396.0	393.8	371.2
Softwoods							
Sawmills	11.3	13.2	13.8	13.8	16.1	16.0	19.7
Pulp mills [1]	55.9	67.2	72.9	76.5	83.0	92.5	74.8
Other mills [2]	0.4	0.1	2.3	0.5	1.0	1.7	2.1
Total	67.6	80.5	89.0	90.8	101.2	110.2	96.6
Hardwoods							
Sawmills	81.9	80.2	84.0	91.9	101.3	95.3	93.2
Pulp mills [1]	168.1	158.9	162.8	171.6	178.4	168.1	167.3
Other mills [2]	9.3	9.1	11.7	14.8	16.1	20.2	14.2
Total	259.3	248.2	258.5	278.3	295.8	283.6	274.7

[1] *Includes particleboard plants: OSB, waferboard, etc.*

[2] *Does not include treating plants or fuelwood receipts.*

Rows and columns may not sum due to rounding

Table 3.-- Industrial roundwood production by Forest Survey Unit, species group, and type of product, Wisconsin, 1999

ALL UNITS

Species group	Saw logs		Veneer logs		Pulpwood		Cabin logs	Excelsior/ shaving	Industrial fuelwood		Miscel-laneous	Posts		All products
	MBF [1]	MCF [2]	MBF [1]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	M pieces	MCF [2]	MCF [2]
Softwoods														
Balsam fir	1,688	354	–	–	86,802	6,840	2	–	–	–	–	–	–	7,196
Redcedar	34	7	–	–	–	–	–	–	–	–	–	1	1	8
Tamarack	98	21	–	–	14,504	1,143	–	–	–	–	–	–	–	1,163
Spruce	4,548	955	750	122	66,399	5,232	2	–	–	–	–	–	–	6,311
Jack pine	21,960	4,609	143	23	295,524	23,317	1	–	–	–	–	–	–	27,951
Red pine	82,017	13,959	629	102	305,578	24,141	294	19	–	–	–	380	390	38,906
White pine	33,902	5,770	539	88	54,059	4,271	412	6	–	–	–	28	29	10,576
Scotch pine	47	10	–	–	–	–	–	–	–	–	–	–	–	10
N. white-cedar	1,085	228	8	1	402	32	59	–	–	–	1	339	348	669
Hemlock	1,590	271	–	–	21,983	1,737	1	–	–	–	–	–	–	2,008
Total	146,969	26,184	2,069	337	845,251	66,712	771	25	–	–	1	748	769	94,798
Hardwoods														
Boxelder	69	12	–	–	–	–	–	–	–	–	–	–	–	12
Soft maple	45,934	8,199	892	145	236,863	18,734	–	6	153	11	–	–	–	27,096
Hard maple	79,067	13,212	5,980	974	271,850	21,476	0	–	184	13	–	–	–	35,675
Paper birch	18,433	3,290	6,373	1,038	233,728	18,486	–	12	80	6	–	–	–	22,831
Yellow birch	4,181	746	393	64	23,481	1,855	–	–	–	–	–	–	–	2,665
Hickory	3,198	571	58	9	–	–	–	–	–	–	–	–	–	580
Hackberry	268	48	–	–	–	–	–	–	–	–	–	–	–	48
Beech	2,623	468	32	5	5,574	440	–	–	–	–	–	–	–	914
Ash	17,139	3,059	44	7	64,662	5,108	–	–	81	6	–	–	–	8,181
Honeylocust	–	–	–	–	–	–	–	–	40	3	–	–	–	3
Butternut	317	57	–	–	–	–	–	–	–	–	–	–	–	57
Black walnut	1,072	191	85	14	–	–	–	–	–	–	–	–	–	205
Cottonwood	1,131	202	33	5	1,825	144	–	9	–	–	–	–	–	361
Balsam poplar	160	29	19	3	5,716	452	–	–	–	–	–	–	–	483
Aspen	95,653	16,701	12,640	2,058	1,100,667	86,953	–	3,527	50,728	3,551	–	–	–	112,789
Black cherry	3,691	659	316	51	–	–	–	–	80	6	–	–	–	716
Other cherry	14	2	–	–	1,121	89	–	–	–	–	–	–	–	91
Red oak	139,580	24,440	10,357	1,686	119,990	9,491	1	3	15,062	1,054	–	–	–	36,675
White oak	38,582	6,756	325	53	39,433	3,119	–	8	291	20	–	1	1	9,957
Black locust	3	1	–	–	–	–	–	–	–	–	–	–	–	1
Willow	118	21	–	–	491	39	–	–	–	–	–	–	–	60
Basswood	31,470	5,617	2,647	431	63,608	5,025	–	54	–	–	–	–	–	11,127
Elm	2,758	492	–	–	47,842	3,780	–	–	–	–	–	–	–	4,272
Eastern hophornbeam	–	–	–	–	1,113	88	–	–	–	–	–	–	–	88
Other hardwoods	327	58	–	–	–	–	–	–	–	–	–	–	–	58
Total	485,788	84,833	40,195	6,544	2,217,965	175,278	1	3,620	66,699	4,669	–	1	1	274,945
All species	632,757	111,017	42,264	6,881	3,063,216	241,990	772	3,645	66,699	4,669	1	749	770	369,743

(Table 3 continued on next page)

(Table 3 continued)

CENTRAL UNIT

Species group	Saw logs		Veneer logs		Pulpwood		Cabin logs	Excelsior/ shaving	Industrial fuelwood		Miscel-laneous	Posts		All products
	MBF [1]	MCF [2]	MBF [1]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	M pieces	MCF [2]	MCF [2]
Softwoods														
Balsam fir	41	9	–	–	954	75	–	–	–	–	–	–	–	84
Tamarack	–	–	–	–	682	54	–	–	–	–	–	–	–	54
Spruce	206	43	–	–	4,194	330	–	–	–	–	–	–	–	374
Jack pine	729	153	0	0	96,321	7,600	–	–	–	–	–	–	–	7,753
Red pine	15,735	2,678	26	4	140,147	11,072	2	12	–	–	–	103	105	13,873
White pine	9,271	1,578	32	5	25,937	2,049	308	5	–	–	–	7	7	3,952
N. white-cedar	42	9	–	–	–	–	–	–	–	–	–	–	–	9
Hemlock	60	10	–	–	1,546	122	–	–	–	–	–	–	–	132
Total	26,084	4,480	59	10	269,782	21,302	310	16	–	–	–	109	112	26,230
Hardwoods														
Soft maple	14,818	2,645	562	91	34,212	2,706	–	4	153	11	–	–	–	5,457
Hard maple	10,675	1,784	905	147	40,379	3,190	–	–	104	7	–	–	–	5,128
Paper birch	1,152	206	195	32	26,857	2,124	–	–	–	–	–	–	–	2,362
Yellow birch	677	121	–	–	3,426	271	–	–	–	–	–	–	–	391
Hickory	535	95	–	–	–	–	–	–	–	–	–	–	–	95
Hackberry	1	0	–	–	–	–	–	–	–	–	–	–	–	0
Beech	50	9	–	–	292	23	–	–	–	–	–	–	–	32
Ash	3,255	581	1	0	11,262	890	–	–	57	4	–	–	–	1,475
Butternut	97	17	–	–	–	–	–	–	–	–	–	–	–	17
Black walnut	–	–	28	5	–	–	–	–	–	–	–	–	–	5
Cottonwood	16	3	–	–	563	44	–	4	–	–	–	–	–	51
Balsam poplar	–	–	–	–	58	5	–	–	–	–	–	–	–	5
Aspen	16,074	2,806	143	23	147,309	11,637	–	305	–	–	–	–	–	14,772
Black cherry	417	75	36	6	–	–	–	–	–	–	–	–	–	80
Red oak	47,530	8,323	2,493	406	71,674	5,669	–	–	562	39	–	–	–	14,437
White oak	12,723	2,228	3	0	27,355	2,164	–	–	91	6	–	–	–	4,398
Black locust	2	0	–	–	–	–	–	–	–	–	–	–	–	0
Willow	–	–	–	–	30	2	–	–	–	–	–	–	–	2
Basswood	6,328	1,130	515	84	5,471	432	–	1	–	–	–	–	–	1,646
Elm	337	60	–	–	10,891	860	–	–	–	–	–	–	–	920
Total	114,688	20,083	4,879	794	379,780	30,018	–	313	967	68	–	–	–	51,276
All species	140,772	24,562	4,938	804	649,561	51,320	310	329	967	68	–	109	112	77,506

(Table 3 continued on next page)

(Table 3 continued)

NORTHWEST UNIT

Species group	Saw logs		Veneer logs		Pulpwood		Cabin logs	Excelsior/ shaving	Industrial fuelwood		Miscel- laneous	Posts		All products
	MBF [1]	MCF [2]	MBF [1]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	M pieces	MCF [2]	MCF [2]
Softwoods														
Balsam fir	740	155	–	–	41,794	3,294	–	–	–	–	–	–	–	3,449
Tamarack	72	15	–	–	7,715	608	–	–	–	–	–	–	–	623
Spruce	1,456	306	140	23	27,869	2,196	–	–	–	–	–	–	–	2,525
Jack pine	14,565	3,057	17	3	130,438	10,292	1	–	–	–	–	–	–	13,352
Red pine	34,267	5,832	218	36	52,178	4,122	23	–	–	–	–	145	149	10,162
White pine	6,312	1,074	126	20	7,052	557	11	–	–	–	–	14	14	1,677
N. white-cedar	21	4	–	–	–	–	–	–	–	–	1	–	–	5
Hemlock	51	9	–	–	2,191	173	–	–	–	–	–	–	–	182
Total	57,484	10,453	502	82	269,237	21,242	35	–	–	–	1	159	163	31,975
Hardwoods														
Soft maple	8,076	1,442	96	16	98,375	7,780	–	–	–	–	–	–	–	9,238
Hard maple	15,810	2,642	679	111	108,707	8,588	–	–	–	–	–	–	–	11,340
Paper birch	6,375	1,138	2,228	363	126,263	9,986	–	–	–	–	–	–	–	11,487
Yellow birch	1,039	185	39	6	7,123	563	–	–	–	–	–	–	–	754
Hickory	173	31	–	–	–	–	–	–	–	–	–	–	–	31
Hackberry	77	14	–	–	–	–	–	–	–	–	–	–	–	14
Beech	3	1	–	–	652	51	–	–	–	–	–	–	–	52
Ash	3,234	577	37	6	26,204	2,070	–	–	–	–	–	–	–	2,653
Butternut	20	4	–	–	–	–	–	–	–	–	–	–	–	4
Cottonwood	2	0	–	–	947	75	–	–	–	–	–	–	–	75
Balsam poplar	18	3	–	–	2,363	187	–	–	–	–	–	–	–	190
Aspen	28,206	4,925	11,210	1,825	485,224	38,333	–	2,049	7,732	541	–	–	–	47,672
Black cherry	181	32	28	5	–	–	–	–	–	–	–	–	–	37
Other cherry	14	2	–	–	87	7	–	–	–	–	–	–	–	9
Red oak	20,684	3,622	2,533	412	21,644	1,712	–	–	–	–	–	–	–	5,746
White oak	3,261	571	31	5	6,111	483	–	–	–	–	–	–	–	1,059
Willow	–	–	–	–	145	11	–	–	–	–	–	–	–	11
Basswood	6,742	1,203	900	146	20,957	1,656	–	–	–	–	–	–	–	3,006
Elm	79	14	–	–	14,352	1,134	–	–	–	–	–	–	–	1,148
Eastern hophornbeam	–	–	–	–	87	7	–	–	–	–	–	–	–	7
Total	93,995	16,406	17,780	2,895	919,242	72,642	–	2,049	7,732	541	–	–	–	94,534
All species	151,479	26,859	18,282	2,976	1,188,479	93,884	35	2,049	7,732	541	1	159	163	126,509

(Table 3 continued on next page)

(Table 3 continued)

NORTHEAST UNIT

Species group	Saw logs		Veneer logs		Pulpwood		Cabin logs	Excelsior/ shaving	Industrial fuelwood		Miscel-laneous	Posts		All products
	MBF [1]	MCF [2]	MBF [1]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	M pieces	MCF [2]	MCF [2]
Softwoods														
Balsam fir	906	190	–	–	39,820	3,138	2	–	–	–	–	–	–	3,330
Tamarack	15	3	–	–	6,079	479	–	–	–	–	–	–	–	482
Spruce	2,785	585	610	99	30,669	2,417	2	–	–	–	–	–	–	3,102
Jack pine	6,607	1,387	126	20	61,855	4,880	0	–	–	–	–	–	–	6,288
Red pine	26,410	4,495	385	63	73,395	5,798	77	–	–	–	–	–	–	10,433
White pine	15,938	2,713	380	62	10,783	852	89	–	–	–	–	–	–	3,715
Scotch pine	47	10	–	–	–	–	–	–	–	–	–	–	–	10
N. white-cedar	739	155	8	1	402	32	36	–	–	–	–	303	312	536
Hemlock	1,308	223	–	–	18,213	1,439	1	–	–	–	–	–	–	1,663
Total	54,755	9,760	1,508	246	241,215	19,034	207	–	–	–	–	303	312	29,559
Hardwoods														
Soft maple	14,722	2,628	204	33	98,234	7,770	–	–	–	–	–	–	–	10,431
Hard maple	38,251	6,392	3,783	616	114,157	9,018	0	–	–	–	–	–	–	16,026
Paper birch	10,234	1,827	3,837	625	76,373	6,041	–	–	–	–	–	–	–	8,492
Yellow birch	2,259	403	355	58	12,421	981	–	–	–	–	–	–	–	1,442
Hickory	191	34	–	–	–	–	–	–	–	–	–	–	–	34
Beech	1,788	319	32	5	4,572	361	–	–	–	–	–	–	–	686
Ash	5,973	1,066	6	1	25,289	1,998	–	–	–	–	–	–	–	3,065
Butternut	113	20	–	–	–	–	–	–	–	–	–	–	–	20
Black walnut	–	–	49	8	–	–	–	–	–	–	–	–	–	8
Cottonwood	59	11	–	–	300	24	–	–	–	–	–	–	–	34
Balsam poplar	60	11	19	3	3,260	258	–	–	–	–	–	–	–	271
Aspen	43,420	7,581	1,281	209	453,709	35,843	–	869	42,900	3,003	–	–	–	47,505
Black cherry	740	132	99	16	–	–	–	–	–	–	–	–	–	148
Other cherry	–	–	–	–	1,033	82	–	–	–	–	–	–	–	82
Red oak	19,261	3,373	3,342	544	21,037	1,664	1	–	14,300	1,001	–	–	–	6,582
White oak	1,550	271	154	25	3,623	286	–	–	–	–	–	–	–	583
Willow	–	–	–	–	300	24	–	–	–	–	–	–	–	24
Basswood	12,408	2,215	796	130	35,683	2,819	–	47	–	–	–	–	–	5,211
Elm	484	86	–	–	20,664	1,632	–	–	–	–	–	–	–	1,719
Eastern hophornbeam	–	–	–	–	1,025	81	–	–	–	–	–	–	–	81
Total	151,513	26,369	13,956	2,272	871,680	68,882	1	916	57,200	4,004	–	–	–	102,444
All species	206,269	36,129	15,464	2,518	1,112,896	87,916	208	916	57,200	4,004	–	303	312	132,003

(Table 3 continued on next page)

(Table 3 continued)

SOUTHEAST UNIT

Species group	Saw logs		Veneer logs		Pulpwood		Cabin logs	Excelsior/ shaving	Industrial fuelwood		Miscel-laneous	Posts		All products
	MBF [1]	MCF [2]	MBF [1]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	M pieces	MCF [2]	MCF [2]
Softwoods														
Balsam fir	1	0	–	–	–	–	–	–	–	–	–	–	–	0
Tamarack	11	2	–	–	27	2	–	–	–	–	–	–	–	4
Spruce	29	6	–	–	1,628	128	–	–	–	–	–	–	–	134
Jack pine	2	0	–	–	519	41	–	–	–	–	–	–	–	41
Red pine	792	135	–	–	9,812	775	190	3	–	–	–	–	–	1,103
White pine	756	129	–	–	2,782	220	2	–	–	–	–	–	–	351
N. white-cedar	283	59	–	–	–	–	23	–	–	–	–	35	36	119
Hemlock	171	29	–	–	33	3	–	–	–	–	–	–	–	32
Total	2,044	361	–	–	14,801	1,169	215	3	–	–	–	35	36	1,785
Hardwoods														
Boxelder	24	4	–	–	–	–	–	–	–	–	–	–	–	4
Soft maple	4,445	793	4	1	1,492	118	–	–	–	–	–	–	–	912
Hard maple	4,604	769	16	3	2,409	190	–	–	–	–	–	–	–	962
Paper birch	516	92	82	13	1,258	100	–	–	–	–	–	–	–	205
Yellow birch	204	36	–	–	87	7	–	–	–	–	–	–	–	43
Hickory	379	68	–	–	–	–	–	–	–	–	–	–	–	68
Hackberry	26	5	–	–	–	–	–	–	–	–	–	–	–	5
Beech	782	140	–	–	–	–	–	–	–	–	–	–	–	140
Ash	2,683	479	–	–	442	35	–	–	–	–	–	–	–	514
Butternut	50	9	–	–	–	–	–	–	–	–	–	–	–	9
Black walnut	126	22	–	–	–	–	–	–	–	–	–	–	–	22
Cottonwood	358	64	–	–	6	0	–	–	–	–	–	–	–	64
Balsam poplar	82	15	–	–	16	1	–	–	–	–	–	–	–	16
Aspen	1,593	278	6	1	2,582	204	–	60	24	2	–	–	–	545
Black cherry	1,055	188	10	2	–	–	–	–	32	2	–	–	–	192
Red oak	7,399	1,296	17	3	1,392	110	–	–	50	4	–	–	–	1,412
White oak	4,569	800	30	5	354	28	–	–	50	4	–	–	–	836
Willow	50	9	–	–	6	0	–	–	–	–	–	–	–	9
Basswood	1,790	319	–	–	573	45	–	–	–	–	–	–	–	364
Elm	508	91	–	–	48	4	–	–	–	–	–	–	–	94
Other hardwoods	10	2	–	–	–	–	–	–	–	–	–	–	–	2
Total	31,249	5,479	164	27	10,665	843	–	60	156	11	–	–	–	6,419
All species	33,293	5,839	164	27	25,466	2,012	215	63	156	11	–	35	36	8,204

(Table 3 continued on next page)

(Table 3 continued)

SOUTHWEST UNIT

Species group	Saw logs		Veneer logs		Pulpwood		Cabin logs	Excelsior/ shaving	Industrial fuelwood		Miscel-laneous	Posts		All products
	MBF [1]	MCF [2]	MBF [1]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	MCF [2]	Cords [3]	MCF [2]	MCF [2]	M pieces	MCF [2]	MCF [2]
Softwoods														
Balsam fir	–	–	–	–	4,233	334	–	–	–	–	–	–	–	334
Redcedar	34	7	–	–	–	–	–	–	–	–	–	1	1	8
Spruce	72	15	–	–	2,040	161	–	–	–	–	–	–	–	176
Jack pine	58	12	0	0	6,392	504	–	–	–	–	–	–	–	516
Red pine	4,814	819	0	0	30,047	2,374	1	4	–	–	–	133	136	3,335
White pine	1,625	277	0	0	7,505	593	2	2	–	–	–	7	7	881
Total	6,602	1,130	0	0	50,217	3,965	4	6	–	–	–	141	145	5,249
Hardwoods														
Boxelder	45	8	–	–	–	–	–	–	–	–	–	–	–	8
Soft maple	3,873	691	27	4	4,550	360	–	2	–	–	–	–	–	1,058
Hard maple	9,726	1,625	598	97	6,199	490	–	–	80	6	–	–	–	2,218
Paper birch	156	28	32	5	2,976	235	–	12	80	6	–	–	–	286
Yellow birch	3	0	–	–	425	34	–	–	–	–	–	–	–	34
Hickory	1,921	343	58	9	–	–	–	–	–	–	–	–	–	352
Hackberry	164	29	–	–	–	–	–	–	–	–	–	–	–	29
Beech	–	–	–	–	59	5	–	–	–	–	–	–	–	5
Ash	1,994	356	–	–	1,464	116	–	–	24	2	–	–	–	473
Honeylocust	–	–	–	–	–	–	–	–	40	3	–	–	–	3
Butternut	37	7	–	–	–	–	–	–	–	–	–	–	–	7
Black walnut	946	169	9	1	–	–	–	–	–	–	–	–	–	170
Cottonwood	696	124	33	5	9	1	–	6	–	–	–	–	–	136
Balsam poplar	–	–	–	–	19	1	–	–	–	–	–	–	–	1
Aspen	6,361	1,111	–	–	11,842	936	–	244	72	5	–	–	–	2,295
Black cherry	1,299	232	143	23	–	–	–	–	48	3	–	–	–	258
Red oak	44,705	7,828	1,972	321	4,243	336	–	3	150	11	–	–	–	8,498
White oak	16,479	2,886	107	17	1,991	157	–	8	150	11	–	1	1	3,080
Black locust	1	0	–	–	–	–	–	–	–	–	–	–	–	0
Willow	68	12	–	–	9	1	–	–	–	–	–	–	–	13
Basswood	4,202	750	437	71	924	73	–	6	–	–	–	–	–	900
Elm	1,350	241	–	–	1,887	149	–	–	–	–	–	–	–	390
Other hardwoods	318	57	–	–	–	–	–	–	–	–	–	–	–	57
Total	94,343	16,497	3,415	556	36,598	2,893	–	282	644	45	–	1	1	20,273
All species	100,945	17,627	3,415	556	86,815	6,858	4	287	644	45	–	142	146	25,522

0=Less than 500 cubic feet or board feet

[1] *Thousand board feet, International 1/4-inch rule.*

[2] *Thousand cubic feet.*

[3] *Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of air space.*

Rows and columns may not sum due to rounding.

Table 4.--Pulpwood production by year, product form, and species group, Wisconsin, 1946-1999

(In thousand standard cords, unpeeled) [1]

Year	Total	Product form: Roundwood: Species group: Pine	Balsam fir	Hemlock	Spruce	Cedar & tamarack	Aspen	Birch	Other hardwoods	Residue: Soft-woods	Hard-woods
1946	433	75	48	64	32	3	202	4	5	0	0
1947	497	157	53	50	31	6	187	8	5	0	0
1948	472	117	87	51	34	3	167	8	5	0	0
1949	427	72	78	47	33	1	184	10	–	0	2
1950	468	93	69	47	31	0	195	6	20	1	6
1951	565	102	55	51	30	1	281	28	17	–	–
1952	582	95	76	66	39	1	275	15	15	–	–
1953	553	71	45	51	26	1	306	12	41	–	–
1954	691	113	56	63	31	4	348	27	49	–	–
1955	710	121	48	58	23	4	365	16	75	–	–
1956	960	140	45	56	23	4	507	21	164	–	–
1957	934	126	60	57	27	6	453	27	178	–	–
1958	828	148	62	55	23	6	369	18	147	–	–
1959	972	186	52	49	21	6	431	26	159	5	37
1960	1,052	124	50	52	18	6	540	27	204	4	27
1961	1,078	154	61	47	23	7	530	34	201	3	18
1962	1,140	188	46	42	15	6	572	41	188	6	36
1963	1,302	170	60	52	19	6	613	50	233	13	86
1964	1,244	168	57	52	20	5	603	41	222	11	65
1965	1,253	207	50	60	15	4	607	24	197	14	75
1966	1,536	215	55	69	17	3	810	39	243	12	73
1967	1,417	174	48	42	13	3	739	84	203	10	101
1968	1,298	199	51	44	11	5	629	57	185	16	101
1969	1,450	216	50	51	13	2	697	62	238	15	106
1970	1,656	259	68	53	16	4	771	76	296	19	94
1971	1,552	268	54	42	12	3	736	51	269	16	101
1972	1,538	246	49	42	13	3	685	47	333	10	110
1973	1,758	232	67	32	16	1	761	73	400	21	155
1974	2,053	291	85	45	19	2	797	102	506	26	180
1975	1,505	240	98	45	25	4	588	83	244	36	142
1976	1,840	286	89	43	19	3	694	114	425	38	129
1977	1,816	297	73	43	19	5	696	103	383	48	149

1978	1,895	358	75	52	20	4	669	121	373	40	183
1979 [2]	2,109	361	84	40	19	2	751	151	441	49	211
1980	2,362	388	101	34	32	4	873	185	456	40	249
1981	2,389	419	105	29	27	5	965	159	389	47	244
1982	2,285	494	103	33	28	7	884	154	339	42	201
1983	2,475	412	85	40	28	6	1,025	198	422	48	211
1984	2,647	483	84	25	42	4	1,067	208	439	47	248
1985	2,588	452	72	37	36	2	1,073	193	431	51	241
1986	2,926	500	46	37	30	2	1,208	283	528	52	240
1987	2,869	489	45	42	36	2	1,097	256	605	47	250
1988	3,084	574	71	46	43	4	1,171	279	606	56	234
1989	3,161	550	67	43	45	5	1,208	333	619	59	232
1990	3,093	620	66	38	49	9	1,096	331	658	48	179
1991	3,146	695	64	33	33	7	1,090	268	595	94	268
1992	3,306	695	61	29	41	5	1,216	307	654	63	235
1993	3,270	692	61	23	34	8	1,129	261	730	68	264
1994	3,465	738	63	33	31	9	1,159	263	826	68	276
1995	3,482	695	73	28	40	9	1,214	309	747	191	176
1996	3,310	712	92	25	37	11	1,109	275	685	75	289
1997	3,194	709	78	26	44	9	980	257	708	96	287
1998	3,160	649	79	23	40	11	975	248	739	108	288
1999	3,268	635	92	25	50	13	1,047	260	778	118	250

0 = Less than 500 cords.

[1] *Standard cords are 128 cubic feet consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.*

[2] *Includes logs, bolts, and wood residue used in manufacturing particleboard and waferboard after 1979.*

Rows may not sum due to rounding.

Table 5.--Pulpwood production by product form, species group, and destination, Wisconsin, 1999

(In standard cords, unpeeled) [1]

Product form and species group	Total	Destination			
		Michigan	Minnesota	Wisconsin	Other [3]
Roundwood					
Softwoods					
Balsam fir	91,693	3,411	18,525	69,727	30
Hemlock	25,398	8,155	–	17,243	–
Jack pine	304,372	8,426	498	295,447	–
Red pine	273,325	3,299	656	269,369	–
White pine	57,000	376	698	55,926	–
N. white cedar	463	463	–	–	–
Spruce	50,432	1,455	5,818	43,067	92
Tamarack	13,176	250	–	12,926	–
Total	815,858	25,835	26,196	763,706	122
Hardwoods					
Ash	68,832	2,276	–	66,556	–
Aspen	1,046,832	43,868	24,038	978,926	–
Balsam poplar	5,413	4,859	48	506	–
Basswood	58,847	6,660	–	52,187	–
Beech	5,091	4,273	–	818	–
Paper birch	216,971	5,979	4,559	206,432	–
Yellow birch	30,314	5,443	–	24,871	–
Cottonwood	2,472	–	–	2,472	–
Elm	39,098	28	–	39,070	–
Hickory	1,450	–	–	1,450	–
Hard maple	241,438	40,399	3,843	197,195	–
Soft maple	209,554	40,260	–	169,294	–
Red oak	136,403	751	–	135,652	–
White oak	14,993	–	–	14,993	–
Other hardwoods	6,564	3,165	–	3,399	–
Total	2,084,271	157,959	32,489	1,893,823	–
Total roundwood	2,900,129	183,794	58,684	2,657,529	122
Residues [2]					
Softwood	118,005	10,203	1,258	104,981	1,686
Hardwood	249,511	12,249	2,562	233,209	1,492
Total	367,517	22,452	3,820	338,190	3,056
All wood material	3,267,646	206,246	62,504	2,995,719	3,178

[1] *Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.*

[2] *Chippable mill residues such as slabs, edgings, etc. Roundwood chips are included in roundwood.*

[3] *Includes other States and Canada.*

Rows and columns may not sum due to rounding.

Table 6.--Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Wisconsin, 1999

(In standard cords, unpeeled) [1]

Forest Survey Unit and county [2]	All species	Species group										
		N. white-cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Spruce	Tamarack	Ash	Aspen	Balsam poplar
Northeast												
Florence	54,472	28	992	5,237	658	1,401	80	1,431	55	835	17,288	674
Forest	104,261	–	6,844	2,025	871	2,904	114	2,710	515	3,339	34,552	1,214
Langlade	114,223	–	8,641	915	2,150	2,839	739	2,816	707	4,567	41,397	248
Lincoln	132,968	–	6,693	1,133	2,564	3,261	1,181	3,215	937	5,886	49,435	129
Marinette	85,287	–	1,687	1,186	11,789	11,685	854	534	506	1,001	30,892	1,432
Menominee	98,549	435	3,306	7,231	8,299	6,674	1,169	1,390	234	2,997	24,318	476
Oconto	40,932	–	1,401	534	1,930	5,326	587	1,392	189	585	16,790	552
Oneida	134,988	–	7,743	492	6,373	9,261	2,386	5,983	938	5,076	40,446	167
Shawano	32,932	–	412	703	434	5,085	166	376	26	843	17,306	4
Vilas	100,303	–	2,315	133	13,887	8,978	3,192	1,100	177	3,341	27,176	198
Total	898,914	463	40,033	19,590	48,954	57,413	10,468	20,946	4,284	28,469	299,598	5,094
Northwest												
Ashland	102,427	–	6,135	172	8,520	5,120	1,030	3,178	282	2,358	37,068	4
Barron	22,748	–	110	15	142	2,020	368	350	–	466	13,010	–
Bayfield	219,809	–	8,052	327	16,890	9,474	2,231	2,724	558	4,571	99,686	32
Burnett	57,347	–	171	–	16,436	3,637	67	114	286	597	25,818	1
Douglas	170,849	–	12,087	–	32,695	16,368	520	3,644	509	734	71,115	37
Iron	120,716	–	4,127	716	543	1,180	85	4,081	101	4,187	59,377	57
Polk	9,868	–	–	–	3,301	1,885	95	314	–	246	484	–
Price	106,241	–	7,860	1,865	2,329	964	220	2,005	3,272	3,726	40,072	55
Rusk	63,051	–	539	47	128	943	271	325	890	2,138	29,995	9
Sawyer	171,712	–	7,336	125	1,679	2,652	439	2,473	1,069	5,716	75,880	4
Taylor	67,745	–	2,786	981	72	644	115	1,029	1,431	2,648	26,775	15
Washburn	96,292	–	1,131	15	25,603	5,299	245	827	–	758	49,359	–
Total	1,208,805	–	50,335	4,262	108,337	50,187	5,684	21,065	8,400	28,145	528,638	215
Central												
Adams	112,998	–	–	–	33,069	21,492	3,859	32	–	620	39,598	–
Chippewa	37,088	–	275	–	1,484	1,610	473	476	192	1,083	15,812	2
Clark	88,589	–	116	–	3,598	3,589	767	73	–	1,932	48,781	1
Eau Claire	27,859	–	–	16	4,603	3,683	535	93	18	579	8,350	–
Jackson	63,434	–	38	–	13,689	12,316	3,687	379	–	830	14,217	1
Juneau	47,287	–	–	–	20,315	10,565	1,638	6	–	201	3,504	–
Marathon	81,645	–	526	1,213	894	6,324	664	2,541	26	3,586	29,427	77
Marquette	19,937	–	–	–	761	11,326	1,225	28	–	15	5,312	–
Monroe	93,459	–	–	–	43,166	12,267	9,959	17	29	584	5,134	–
Portage	33,261	–	236	126	5,823	11,670	1,766	495	148	615	5,956	5
Waupaca	16,188	–	–	14	326	7,033	650	148	14	526	2,594	1
Waushara	26,507	–	13	–	1,912	18,250	2,727	22	47	132	775	–
Wood	46,652	–	3	59	5,771	5,427	1,138	904	–	554	23,864	1
Total	694,905	–	1,206	1,428	135,413	125,552	29,088	5,214	473	11,257	203,323	89

Southwest												
Buffalo	3,943	–	–	–	36	363	123	151	–	32	2,893	–
Crawford	696	–	–	–	45	476	110	–	–	1	–	–
Dunn	13,607	–	10	–	716	4,557	788	177	–	356	3,151	–
Grant	4,710	–	11	–	30	3,620	992	–	–	2	20	–
Iowa	1,454	–	–	–	–	1,065	390	–	–	–	–	–
La Crosse	12,780	–	17	–	5,968	3,714	673	294	–	46	364	–
Lafayette	1,882	–	–	–	29	1,284	569	–	–	–	–	–
Pepin	1,271	–	–	–	41	368	34	–	–	14	599	–
Pierce	1,987	–	–	–	–	369	61	63	19	58	685	–
Richland	1,953	–	–	–	5	435	215	46	–	5	460	–
Sauk	12,818	–	46	–	1,144	7,144	1,870	822	–	61	463	–
St Croix	7,144	–	–	–	1,183	2,591	285	267	–	27	2,361	–
Trempealeau	12,892	–	–	–	293	5,392	2,494	258	–	99	2,982	–
Vernon	2,028	–	–	–	9	703	810	80	–	5	333	–
Total	79,165	–	84	–	9,499	32,081	9,414	2,157	19	706	14,311	–
Southeast												
Brown	936	–	28	–	12	765	10	12	–	–	88	9
Calumet	14	–	–	–	14	–	–	–	–	–	–	–
Columbia	6,419	–	–	–	1,278	3,115	500	85	–	29	277	–
Dane	471	–	–	–	13	208	219	7	–	1	–	–
Dodge	109	–	–	–	–	–	13	91	–	1	–	–
Door	1,843	–	6	118	728	–	–	5	–	78	93	6
Fond Du Lac	122	–	–	–	–	–	–	13	–	5	13	–
Green	476	–	–	–	22	433	21	–	–	–	–	–
Green Lake	403	–	–	–	–	199	14	–	–	–	191	–
Jefferson	920	–	–	–	–	907	–	–	–	–	–	–
Kenosha	578	–	–	–	26	280	–	273	–	–	–	–
Kewaunee	33	–	–	–	–	–	–	–	–	3	11	–
Manitowoc	64	–	–	–	15	16	–	–	–	2	16	–
Outagamie	1,476	–	–	–	–	140	19	25	–	108	203	–
Ozaukee	192	–	–	–	–	36	98	40	–	2	–	–
Rock	47	–	–	–	17	30	–	–	–	–	–	–
Sheboygan	485	–	–	–	–	223	97	146	–	–	20	–
Walworth	994	–	–	–	36	788	160	–	–	1	–	–
Washington	1,484	–	–	–	–	336	747	297	–	8	28	–
Waukesha	1,018	–	–	–	9	573	391	11	–	1	24	–
Winnebago	256	–	–	–	–	41	58	45	–	13	–	–
Total	18,340	–	34	118	2,169	8,091	2,346	1,049	–	254	963	16
State total	2,900,129	463	91,693	25,398	304,372	273,325	57,000	50,432	13,176	68,832	1,046,832	5,413

(Table 6 continued on next page)

(Table 6 continued)

Forest Survey Unit and county [2]	Species group											
	Bass-wood	Beech	Paper birch	Yellow birch	Cotton-wood	Elm	Hickory	Hard maple	Soft maple	Red oak	White oak	Other hardwoods
Northeast												
Florence	1,418	987	2,810	1,252	1	178	–	8,753	9,250	380	43	720
Forest	3,622	748	8,997	2,005	24	2,829	3	14,612	13,848	1,672	279	534
Langlade	3,403	39	12,654	1,719	31	2,186	58	13,638	11,597	3,308	420	151
Lincoln	7,320	39	13,825	2,411	111	2,065	324	13,368	8,580	9,180	552	759
Marinette	1,862	730	2,284	1,096	2	203	6	7,753	7,955	1,128	147	556
Menominee	449	421	3,040	1,981	1	3,083	23	16,420	14,893	1,050	348	311
Oconto	911	316	1,264	530	3	236	2	3,799	3,843	436	67	238
Oneida	7,684	12	15,185	2,033	120	1,155	235	12,554	8,377	7,619	553	598
Shawano	251	4	1,275	325	1	210	5	2,500	2,452	460	81	11
Vilas	4,385	44	13,045	1,374	61	889	152	8,463	5,796	4,857	345	394
Total	31,304	3,341	74,380	14,725	356	13,033	809	101,862	86,591	30,090	2,835	4,274
Northwest												
Ashland	1,331	54	7,640	902	4	2,225	5	8,514	6,782	9,912	1,175	15
Barron	337	1	2,053	166	–	135	15	1,290	1,326	835	79	29
Bayfield	3,587	843	22,133	2,367	22	896	129	19,572	17,957	6,301	566	891
Burnett	431	–	3,591	220	–	185	8	2,101	2,329	1,196	143	17
Douglas	618	1	16,611	233	–	219	7	6,412	8,408	540	75	15
Iron	2,986	442	7,984	2,053	14	3,345	96	13,968	11,107	3,524	282	460
Polk	152	–	1,544	85	–	82	1	790	645	210	31	2
Price	3,960	28	14,390	1,368	55	1,552	129	10,020	7,509	4,224	325	314
Rusk	2,121	16	7,123	663	944	1,613	28	7,653	5,710	1,634	195	66
Sawyer	3,859	47	22,722	1,999	4	3,101	19	19,935	18,705	3,329	579	42
Taylor	1,873	83	8,171	1,091	201	3,165	16	8,093	6,716	1,571	224	46
Washburn	541	–	2,909	180	–	149	8	3,963	4,220	955	113	17
Total	21,796	1,516	116,871	11,328	1,244	16,668	461	102,312	91,414	34,230	3,787	1,911
Central												
Adams	238	–	867	229	–	54	43	1,322	784	9,672	1,034	85
Chippewa	1,269	2	3,869	422	738	685	26	3,877	2,277	2,221	240	54
Clark	1,051	12	6,231	611	118	903	6	6,508	5,455	7,869	955	14
Eau Claire	301	5	2,105	206	–	290	9	1,751	1,417	3,487	391	19
Jackson	330	5	1,708	217	1	278	13	2,650	2,285	9,691	1,073	26
Juneau	59	–	381	28	–	27	–	742	694	8,212	916	–
Marathon	1,064	196	4,409	1,484	8	6,245	6	10,445	10,040	2,171	279	22
Marquette	9	–	14	6	–	–	–	40	39	1,047	115	–
Monroe	144	–	878	124	–	60	18	1,811	1,545	15,943	1,745	35
Portage	407	1	1,025	236	5	122	26	1,538	1,178	1,635	190	57
Waupaca	100	8	481	176	1	276	4	1,584	1,596	467	180	9
Waushara	42	–	176	50	–	11	5	328	269	1,398	339	10
Wood	216	4	1,245	127	1	221	–	1,943	1,764	3,055	354	1
Total	5,230	233	23,391	3,917	872	9,174	156	34,540	29,342	66,867	7,808	333

Southwest												
Buffalo	17	–	80	13	–	7	1	83	57	77	7	2
Crawford	1	–	3	–	–	–	–	3	3	48	5	–
Dunn	243	1	866	128	–	101	10	985	737	693	68	21
Grant	1	–	6	1	–	1	–	5	4	14	2	–
Iowa	–	–	–	–	–	–	–	–	–	–	–	–
La Crosse	23	–	100	19	–	9	2	113	74	1,228	133	4
Lafayette	–	–	–	–	–	–	–	–	–	–	–	–
Pepin	7	–	120	5	–	4	–	38	28	13	1	–
Pierce	36	–	199	23	–	25	–	188	153	94	14	–
Richland	2	–	13	1	–	1	–	14	11	670	75	–
Sauk	23	–	94	12	–	5	1	196	174	688	74	2
St Croix	14	–	185	8	–	7	–	93	91	27	4	–
Trempealeau	43	–	199	34	–	14	5	240	163	608	58	10
Vernon	2	–	15	1	–	1	–	16	14	34	4	–
Total	412	1	1,879	245	–	176	20	1,973	1,509	4,193	446	40
Southeast												
Brown	6	–	2	–	–	–	–	2	2	–	–	–
Calumet	–	–	–	–	–	–	–	–	–	–	–	–
Columbia	18	–	63	12	–	5	1	72	49	823	89	2
Dane	1	–	4	–	–	–	–	4	3	9	1	–
Dodge	–	–	2	–	–	–	–	2	1	–	–	–
Door	32	–	173	30	–	17	–	248	234	65	9	–
Fond Du Lac	2	–	14	1	–	1	–	16	13	39	4	–
Green	–	–	–	–	–	–	–	–	–	–	–	–
Green Lake	–	–	–	–	–	–	–	–	–	–	–	–
Jefferson	–	–	–	–	–	–	–	–	–	11	1	–
Kenosha	–	–	–	–	–	–	–	–	–	–	–	–
Kewaunee	–	–	1	1	–	–	–	8	9	–	–	–
Manitowoc	–	–	1	1	–	–	–	7	7	–	–	–
Outagamie	47	–	176	44	–	25	2	314	292	66	11	4
Ozaukee	–	–	1	1	–	–	–	7	7	–	–	–
Rock	–	–	–	–	–	–	–	–	–	–	–	–
Sheboygan	–	–	–	–	–	–	–	–	–	–	–	–
Walworth	–	–	–	–	–	–	–	4	4	–	–	–
Washington	–	–	4	3	–	–	–	23	26	10	1	–
Waukesha	–	–	–	–	–	–	–	3	4	–	–	–
Winnebago	–	–	7	5	–	–	–	41	46	–	–	–
Total	106	–	451	99	–	48	3	751	698	1,023	116	6
State total	58,847	5,091	216,971	30,314	2,472	39,098	1,450	241,438	209,554	136,403	14,993	6,564

[1] *Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.*

[2] *Includes only those counties that supplied pulpwood in 1999*

Rows may not sum due to rounding.

Table 7.--Pulpwood receipts by year, product form, and species group, Wisconsin, 1946-1999

(In thousand standard cords, unpeeled) [1]

Year	Total	Product form: Roundwood: Species group: Pine	Balsam fir	Hemlock	Spruce	Cedar & tamarack	Aspen	Birch	Other hardwoods	Residue: Soft-woods	Hard-woods
1946	1,902	298	280	233	645	16	416	14	*	*	*
1947	1,722	292	230	134	687	19	346	13	*	*	1
1948	1,741	307	279	136	663	5	333	17	*	*	1
1949	1,426	227	244	101	502	3	332	15	*	*	2
1950	1,442	244	238	91	441	3	387	10	21	1	6
1951	2,097	428	232	120	678	10	569	42	18	–	–
1952	2,059	365	288	131	732	6	490	32	15	–	–
1953	1,689	283	179	76	529	2	552	26	42	–	–
1954	1,919	298	228	125	608	5	566	40	49	–	–
1955	1,777	319	199	92	471	5	590	26	75	–	–
1956	2,136	397	195	143	445	9	754	27	166	–	–
1957	2,247	325	254	116	578	14	739	38	183	–	–
1958	1,866	318	200	90	479	18	583	19	159	–	–
1959	1,881	436	169	87	345	17	619	30	165	7	6
1960	2,114	388	176	97	389	26	785	31	208	7	7
1961	1,972	330	177	92	350	19	741	44	196	12	11
1962	2,124	395	155	99	317	19	784	49	206	51	49
1963	2,429	414	175	114	341	22	877	64	235	96	91
1964	2,271	350	139	110	314	20	855	62	233	96	92
1965	2,290	410	114	120	300	19	899	26	219	91	92
1966	2,701	473	139	162	301	11	1,112	44	270	100	89
1967	2,729	415	140	100	308	42	1,115	91	259	135	124
1968	2,226	405	100	86	200	33	860	59	205	160	118
1969	2,514	456	81	112	208	25	978	63	278	192	121
1970	2,821	498	111	118	208	43	1,088	81	333	189	152
1971	2,581	514	88	83	167	37	1,011	53	295	193	140
1972	2,450	443	82	69	181	31	902	48	354	198	142
1973	2,696	387	103	54	224	28	1,006	68	398	279	149
1974	3,135	508	133	69	161	36	1,109	115	558	257	189
1975	2,344	391	155	73	146	30	791	89	288	216	165
1976	2,713	437	137	66	121	34	926	133	486	256	117
1977	2,596	416	109	43	94	31	915	120	445	299	124

1978	2,676	491	99	50	82	25	888	145	450	301	145
1979 [2]	3,067	567	115	39	76	21	999	178	548	332	192
1980	3,266	518	147	40	94	34	1,118	231	562	268	254
1981	3,154	512	135	31	86	31	1,182	189	477	252	259
1982	2,978	565	131	36	79	37	1,092	173	434	209	222
1983	3,114	470	114	43	65	27	1,220	217	502	222	234
1984	3,301	540	108	26	95	15	1,269	228	552	204	264
1985	3,104	500	97	39	80	4	1,250	202	494	198	240
1986	3,270	543	59	40	63	4	1,370	240	518	192	241
1987	3,130	538	45	46	73	3	1,199	220	592	157	257
1988	3,287	641	59	48	97	6	1,223	233	555	181	244
1989	3,339	627	60	45	104	6	1,247	274	582	150	244
1990	3,334	685	59	41	125	13	1,158	277	628	177	171
1991	3,311	766	50	33	95	9	1,181	205	539	174	258
1992	3,534	775	54	31	112	7	1,309	268	594	163	220
1993	3,485	789	55	26	102	10	1,207	224	653	160	259
1994	3,748	846	62	34	98	12	1,250	253	755	159	279
1995	3,794	766	61	25	117	19	1,360	307	672	301	167
1996	3,764	796	146	21	189	21	1,218	266	644	170	294
1997	3,547	821	80	20	126	29	1,060	273	637	202	299
1998	3,586	712	90	19	123	24	1,064	280	699	270	305
1999	3,644	680	87	20	112	25	1,132	274	709	351	254

* *= Less than 500 cords.*

[1] *Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.*

[2] *Includes logs, bolts, and wood residue used in manufacturing particleboard and waferboard after 1979.*

Rows may not sum due to rounding.

Table 8.--Pulpwood receipts by year and area of origin, Wisconsin, 1960-1999

(In thousand standard cords, unpeeled) [1]

Year	All areas	Area of origin				
		Michigan	Minnesota	Wisconsin	Other States	Canada
1960	2,115	510	308	1,008	82	207
1961	1,972	464	240	1,050	44	174
1962	2,124	540	216	1,114	108	146
1963	2,429	628	221	1,262	153	165
1964	2,272	588	193	1,207	135	149
1965	2,290	608	159	1,225	135	163
1966	2,701	666	193	1,501	185	156
1967	2,729	660	299	1,387	234	149
1968	2,227	455	166	1,259	223	124
1969	2,513	537	188	1,412	257	119
1970	2,820	610	219	1,627	249	115
1971	2,581	567	188	1,502	234	90
1972	2,450	470	166	1,493	230	91
1973	2,697	418	194	1,671	291	123
1974	3,135	534	261	2,004	269	67
1975	2,344	449	178	1,460	177	80
1976	2,713	434	182	1,784	203	110
1977	2,596	407	154	1,713	227	95
1978	2,676	404	162	1,779	242	89
1979 [2]	3,067	516	169	2,024	266	92
1980	3,266	490	216	2,298	170	92
1981	3,155	419	177	2,320	164	75
1982	2,979	396	179	2,231	131	42
1983	3,114	391	155	2,399	137	32
1984	3,301	442	184	2,534	134	7
1985	3,104	392	105	2,465	127	15
1986	3,270	369	69	2,693	116	23
1987	3,130	313	62	2,644	90	21
1988	3,288	311	79	2,771	102	25
1989	3,338	319	116	2,799	90	14
1990	3,334	313	127	2,768	108	19
1991	3,311	304	101	2,799	88	17

1992	3,534	323	105	2,997	103	6
1993	3,485	272	146	2,970	80	17
1994	3,748	310	164	3,167	81	25
1995	3,794	346	178	3,168	83	19
1996	3,764	267	352	3,020	95	30
1997	3,547	223	287	2,913	95	29
1998	3,586	272	251	2,905	100	58
1999	3,644	297	213	2,996	112	26

[1] *Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.*

[2] *Includes logs, bolts, and wood residue used in manufacturing particleboard and waferboard after 1979.*

Rows may not sum due to rounding.

Table 9.-- Pulpwood receipts by product form, species group, and area of origin, Wisconsin, 1999

(In standard cords, unpeeled) [1]

Product form and species group	Total receipts	Area of origin				
		Michigan	Minnesota	Wisconsin	Other States	Canada
Roundwood						
Softwoods						
Balsam fir	86,899	16,585	587	69,727	–	–
Hemlock	19,513	2,270	–	17,243	–	–
Jack pine	331,325	25,954	9,924	295,447	–	–
Red pine	290,006	11,211	8,602	269,369	823	–
White pine	58,485	1,650	369	55,926	541	–
Spruce	111,756	21,534	47,077	43,067	79	–
Tamarack	24,758	2,008	9,824	12,926	–	–
Total	922,743	81,212	76,383	763,706	1,443	–
Hardwoods						
Ash	69,326	2,164	607	66,556	–	–
Aspen	1,131,599	50,103	92,432	978,926	–	10,139
Balsam poplar	531	25	–	506	–	–
Basswood	56,432	2,173	2,072	52,187	–	–
Beech	821	3	–	818	–	–
Paper birch	247,820	7,555	30,184	206,432	–	3,649
Yellow birch	25,717	846	–	24,871	–	–
Cottonwood	2,497	25	–	2,472	–	–
Elm	39,725	655	–	39,070	–	–
Hickory	1,515	65	–	1,450	–	–
Hard maple	204,544	6,615	734	197,195	–	–
Soft maple	179,690	4,653	5,743	169,294	–	–
Red oak	137,262	1,607	2	135,652	–	–
White oak	15,057	65	–	14,993	–	–
Other hardwoods	3,553	154	–	3,399	–	–
Total	2,116,090	76,706	131,773	1,893,823	–	13,788
All species	3,038,834	157,918	208,156	2,657,529	1,433	13,788
Residues						
Softwood	351,032	125,533	–	104,981	108,000	12,518
Hardwood	254,215	13,359	4,736	233,209	2,911	–
Total	605,247	138,893	4,736	338,190	110,911	12,518
All wood material	3,644,081	296,811	212,892	2,995,719	112,354	26,306

[1] *Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of bark and air space.*

Rows and columns may not sum due to rounding.

Table 10.-- Saw log production and receipts by species group, Wisconsin, 1996 and 1999

(In thousand board feet) [1]

	Production			Receipts		
Species group	1996	1999	Change	1996	1999	Change
Softwoods						
Balsam fir	1,024	1,688	65%	1,045	868	-17%
Eastern redcedar	27	34	26%	27	34	26%
Tamarack	96	98	2%	100	161	61%
Spruce	1,479	4,548	208%	1,886	2,122	13%
Jack pine	15,928	21,960	38%	10,299	7,835	-24%
Red pine	50,531	82,017	62%	45,062	70,205	56%
White pine	31,180	33,902	9%	29,253	32,948	13%
Unknown pine	–	47	–	–	94	–
N. white-cedar	1,564	1,085	-31%	1,427	633	-56%
Hemlock	4,023	1,590	-60%	4,290	1,815	-58%
Total	105,853	146,969	39%	93,389	116,714	25%
Hardwoods						
Soft maple	40,208	46,003	14%	41,790	48,802	17%
Hard maple	76,843	79,067	3%	82,584	89,889	9%
Paper birch	20,674	18,433	-11%	23,067	19,983	-13%
Yellow birch	4,315	4,181	-3%	6,706	5,462	-19%
Hickory	3,716	3,198	-14%	3,521	3,039	-14%
Hackberry	268	268	0%	157	207	32%
Beech	1,284	2,623	104%	1,317	2,606	98%
Ash	15,738	17,139	9%	16,174	17,730	10%
Butternut	382	317	-17%	483	327	-32%
Black walnut	1,125	1,072	-5%	907	669	-26%
Cottonwood	1,729	1,131	-35%	1,413	827	-41%
Balsam poplar	648	160	-75%	660	142	-78%
Aspen	112,645	95,653	-15%	118,374	102,373	-14%
Black cherry	2,087	3,705	78%	2,243	3,913	74%
Red oak	157,561	139,580	-11%	167,153	147,032	-12%
White oak	44,114	38,582	-13%	45,599	41,149	-10%
Black locust	–	3	–	–	4	–
Willow	118	118	0%	–	–	–
Basswood	41,808	31,470	-25%	45,655	33,992	-26%
Elm	2,664	2,758	4%	2,871	2,879	0%
Other hardwoods	2	327	16250%	2	327	16250%
Total	527,931	485,788	-8%	560,677	521,350	-7%
All species	633,784	632,757	-0.16%	654,066	638,065	-2%

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 11.-- Saw log production in Wisconsin by Forest Survey Unit, species group, and State of destination, 1999

(In thousand board feet) [1]

	ALL UNITS						
Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Wisconsin
Softwoods							
Balsam fir	1,688	–	–	–	938	30	720
Redcedar	34	–	–	–	–	–	34
Tamarack	98	–	–	–	–	–	98
Spruce	4,548	–	–	–	2,902	380	1,266
Jack pine	21,960	–	–	–	2,800	11,659	7,501
Red pine	82,017	–	–	–	1,610	15,418	64,989
White pine	33,902	69	–	–	69	1,914	31,850
Other pine	47	–	–	–	–	–	47
N. white-cedar	1,085	–	–	–	453	–	633
Hemlock	1,590	–	–	–	–	–	1,590
Total	146,969	69	–	–	8,771	29,401	108,728
Hardwoods							
Soft maple	46,003	184	6	280	882	–	44,651
Hard maple	79,067	39	17	486	2,887	–	75,638
Paper birch	18,433	–	–	–	1,079	–	17,354
Yellow birch	4,181	–	–	–	140	4	4,037
Hickory	3,198	69	–	279	–	19	2,831
Hackberry	268	69	–	28	–	–	171
Beech	2,623	–	–	–	19	–	2,604
Ash	17,139	74	6	244	73	25	16,718
Butternut	317	–	–	–	–	–	317
Black walnut	1,072	230	17	375	–	11	439
Cottonwood	1,131	75	–	230	–	–	826
Balsam poplar	160	–	–	–	–	18	142
Aspen	95,653	–	–	84	770	219	94,580
Black cherry	3,691	93	17	117	86	–	3,378
Other cherry	14	–	–	–	–	–	14
Red oak	139,580	84	17	2,591	3,726	1,206	131,956
White oak	38,582	150	17	1,490	–	214	36,711
Black locust	3	–	–	–	–	–	3
Willow	118	69	–	49	–	–	–
Basswood	31,470	69	6	569	263	74	30,489
Elm	2,758	72	–	92	–	–	2,594
Other hardwoods	327	–	–	–	–	–	327
Total	485,788	1,276	99	6,914	9,927	1,790	465,782
All species	632,757	1,345	99	6,914	18,698	31,191	574,510

(Table 11 continued on next page)

(Table 11 continued)

		CENTRAL UNIT					
Species	**Total**	**Illinois**	**Indiana**	**Iowa**	**Michigan**	**Minnesota**	**Wisconsin**
Softwoods							
Balsam fir	41	–	–	–	–	–	41
Spruce	206	–	–	–	–	–	206
Jack pine	729	–	–	–	–	–	729
Red pine	15,735	–	–	–	–	–	15,735
White pine	9,271	–	–	–	–	–	9,271
N. white-cedar	42	–	–	–	–	–	42
Hemlock	60	–	–	–	–	–	60
Total	26,084	–	–	–	–	–	26,084
Hardwoods							
Soft maple	14,818	–	1	–	–	–	14,817
Hard maple	10,675	–	1	–	–	–	10,674
Paper birch	1,152	–	–	–	–	–	1,152
Yellow birch	677	–	–	–	–	–	677
Hickory	535	–	–	–	–	–	535
Hackberry	1	–	–	–	–	–	1
Beech	50	–	–	–	–	–	50
Ash	3,255	–	1	–	–	–	3,255
Butternut	97	–	–	–	–	–	97
Cottonwood	16	–	–	–	–	–	16
Aspen	16,074	–	–	–	–	–	16,074
Black cherry	417	–	4	–	–	–	413
Red oak	47,530	–	2	–	–	–	47,528
White oak	12,723	–	1	–	–	–	12,721
Black locust	2	–	–	–	–	–	2
Basswood	6,328	–	1	–	–	–	6,327
Elm	337	–	–	–	–	–	337
Total	114,688	–	11	–	–	–	114,676
All species	140,772	–	11	–	–	–	140,760

(Table 11 continued on next page)

(Table 11 continued)

	NORTHEAST UNIT						
Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Wisconsin
Softwoods							
Balsam fir	906	–	–	–	649	–	257
Tamarack	15	–	–	–	–	–	15
Spruce	2,785	–	–	–	2,396	–	389
Jack pine	6,607	–	–	–	2,473	–	4,134
Red pine	26,410	–	–	–	1,015	–	25,395
White pine	15,938	–	–	–	69	–	15,870
Other pine	47	–	–	–	–	–	47
N. white-cedar	739	–	–	–	453	–	287
Hemlock	1,308	–	–	–	–	–	1,308
Total	54,755	–	–	–	7,054	–	47,701
Hardwoods							
Soft maple	14,722	–	5	–	382	–	14,335
Hard maple	38,251	–	14	–	2,604	–	35,633
Paper birch	10,234	–	–	–	185	–	10,050
Yellow birch	2,259	–	–	–	140	–	2,118
Hickory	191	–	–	–	–	–	191
Beech	1,788	–	–	–	19	–	1,769
Ash	5,973	–	4	–	73	–	5,896
Butternut	113	–	–	–	–	–	113
Cottonwood	59	–	–	–	–	–	59
Balsam poplar	60	–	–	–	–	–	60
Aspen	43,420	–	–	–	426	–	42,994
Black cherry	740	–	3	–	69	–	668
Red oak	19,261	–	–	–	1,226	–	18,035
White oak	1,550	–	–	–	–	–	1,550
Basswood	12,408	–	3	–	263	–	12,142
Elm	484	–	–	–	–	–	484
Total	151,513	–	29	–	5,387	–	146,097
All species	206,269	–	29	–	12,441	–	193,799

(Table 11 continued on next page)

(Table 11 continued)

Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Wisconsin
	NORTHWEST UNIT						
Softwoods							
Balsam fir	740	–	–	–	289	30	421
Tamarack	72	–	–	–	–	–	72
Spruce	1,456	–	–	–	506	380	570
Jack pine	14,565	–	–	–	327	11,659	2,579
Red pine	34,267	–	–	–	595	15,377	18,295
White pine	6,312	–	–	–	–	1,890	4,422
N. white-cedar	21	–	–	–	–	–	21
Hemlock	51	–	–	–	–	–	51
Total	57,484	–	–	–	1,717	29,336	26,431
Hardwoods							
Soft maple	8,076	–	0	–	500	–	7,576
Hard maple	15,810	–	1	–	284	–	15,526
Paper birch	6,375	–	–	–	895	–	5,480
Yellow birch	1,039	–	–	–	–	4	1,035
Hickory	173	–	–	–	–	–	173
Hackberry	77	–	–	–	–	–	77
Beech	3	–	–	–	–	–	3
Ash	3,234	–	–	–	–	17	3,217
Butternut	20	–	–	–	–	–	20
Cottonwood	2	–	–	–	–	–	2
Balsam poplar	18	–	–	–	–	18	–
Aspen	28,206	–	–	–	345	215	27,647
Black cherry	181	–	1	–	17	–	162
Other cherry	14	–	–	–	–	–	14
Red oak	20,684	–	–	–	2,500	67	18,117
White oak	3,261	–	–	–	–	11	3,250
Basswood	6,742	–	2	–	–	55	6,685
Elm	79	–	–	–	–	–	79
Total	93,995	–	5	–	4,540	387	89,063
All species	151,479	–	5	–	6,257	29,723	115,494

(Table 11 continued on next page)

(Table 11 continued)

Species	Total	SOUTHEAST UNIT Illinois	Indiana	Iowa	Michigan	Minnesota	Wisconsin
Softwoods							
Balsam fir	1	–	–	–	–	–	1
Tamarack	11	–	–	–	–	–	11
Spruce	29	–	–	–	–	–	29
Jack pine	2	–	–	–	–	–	2
Red pine	792	–	–	–	–	–	792
White pine	756	28	–	–	–	–	728
N. white-cedar	283	–	–	–	–	–	283
Hemlock	171	–	–	–	–	–	171
Total	2,044	28	–	–	–	–	2,016
Hardwoods							
Soft maple	4,469	60	–	–	–	–	4,409
Hard maple	4,604	8	–	–	–	–	4,596
Paper birch	516	–	–	–	–	–	516
Yellow birch	204	–	–	–	–	–	204
Hickory	379	9	–	–	–	–	370
Hackberry	26	8	–	–	–	–	18
Beech	782	–	–	–	–	–	782
Ash	2,683	30	0	–	–	–	2,652
Butternut	50	–	–	–	–	–	50
Black walnut	126	9	2	–	–	–	115
Cottonwood	358	16	–	–	–	–	341
Balsam poplar	82	–	–	–	–	–	82
Aspen	1,593	–	–	–	–	–	1,593
Black cherry	1,055	4	1	–	–	–	1,050
Red oak	7,399	–	–	–	–	–	7,399
White oak	4,569	–	–	–	–	–	4,569
Willow	50	50	–	–	–	–	–
Basswood	1,790	5	–	–	–	–	1,785
Elm	508	–	–	–	–	–	508
Other hardwoods	10	–	–	–	–	–	10
Total	31,249	199	4	–	–	–	31,047
All species	33,293	226	4	–	–	–	33,063

(Table 11 continued on next page)

(Table 11 continued)

	SOUTHWEST UNIT						
Species	**Total**	**Illinois**	**Indiana**	**Iowa**	**Michigan**	**Minnesota**	**Wisconsin**
Softwoods							
Redcedar	34	–	–	–	–	–	34
Spruce	72	–	–	–	–	–	72
Jack pine	58	–	–	–	–	–	58
Red pine	4,814	–	–	–	–	41	4,773
White pine	1,625	41	–	–	–	24	1,559
Total	6,602	41	–	–	–	65	6,496
Hardwoods							
Soft maple	3,918	123	–	280	–	–	3,514
Hard maple	9,726	31	–	486	–	–	9,209
Paper birch	156	–	–	–	–	–	156
Yellow birch	3	–	–	–	–	–	3
Hickory	1,921	60	–	279	–	19	1,562
Hackberry	164	61	–	28	–	–	75
Ash	1,994	43	0	244	–	8	1,698
Butternut	37	–	–	–	–	–	37
Black walnut	946	222	15	375	–	11	324
Cottonwood	696	58	–	230	–	–	407
Aspen	6,361	–	–	84	–	4	6,272
Black cherry	1,299	89	7	117	–	–	1,086
Red oak	44,705	84	14	2,591	–	1,139	40,877
White oak	16,479	150	15	1,490	–	203	14,621
Black locust	1	–	–	–	–	–	1
Willow	68	19	–	49	–	–	–
Basswood	4,202	64	–	569	–	19	3,550
Elm	1,350	72	–	92	–	–	1,187
Other hardwoods	318	–	–	–	–	–	318
Total	94,343	1,077	51	6,914	–	1,403	84,898
All species	100,945	1,119	51	6,914	–	1,468	91,394

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 12.--Saw log production by Forest Survey Unit, county, and species group, Wisconsin, 1999

(In thousand board feet) [1]

Unit and county	Balsam fir	Red-cedar	Tamarack	Spruce	Jack pine	Red pine	White pine	Other pine	N. white-cedar	Hemlock	Total softwoods	Soft maple	Hard maple	Paper birch	Yellow birch	Hickory	Hack-berry	Beech
Central																		
Adams	1	–	–	3	91	519	444	–	–	–	1,057	47	9	5	1	1	–	–
Chippewa	–	–	–	–	–	2,217	281	–	–	–	2,498	1,434	623	201	20	50	–	–
Clark	6	–	–	30	199	728	2,022	–	–	–	2,985	1,364	633	158	35	20	–	–
Eau Claire	–	–	–	–	54	1,564	290	–	–	–	1,908	543	73	90	3	6	1	–
Jackson	8	–	–	42	58	1,729	1,648	–	–	–	3,486	878	221	89	13	99	–	–
Juneau	8	–	–	39	22	1,088	755	–	–	–	1,912	715	389	45	12	78	–	–
Marathon	–	–	–	–	29	530	555	–	1	38	1,153	4,967	5,192	250	428	26	–	–
Marquette	–	–	–	–	15	500	55	–	–	–	569	70	10	5	–	4	–	–
Monroe	–	–	–	–	145	2,479	990	–	–	–	3,614	874	1,071	58	5	161	–	–
Portage	7	–	–	36	10	520	770	–	–	–	1,344	1,625	358	90	28	25	–	–
Waupaca	4	–	–	21	5	635	728	–	41	22	1,456	1,448	979	99	94	19	–	50
Waushara	–	–	–	–	5	2,836	182	–	–	–	3,022	57	126	18	3	19	–	–
Wood	7	–	–	33	98	391	549	–	–	–	1,077	796	990	43	36	28	–	–
Total	41	–	–	206	729	15,735	9,271	–	42	60	26,084	14,818	10,675	1,152	677	535	1	50
Northeast																		
Florence	50	–	–	106	260	707	262	–	–	5	1,390	324	1,580	907	108	–	–	–
Forest	115	–	14	689	624	2,415	772	–	84	715	5,428	1,028	7,842	1,343	517	2	–	12
Langlade	157	–	–	74	474	1,996	176	2	3	1	2,882	2,404	9,493	1,542	339	82	–	16
Lincoln	173	–	–	174	117	1,286	241	–	3	–	1,994	1,064	1,388	471	81	24	–	–
Marinette	2	–	–	187	591	3,679	758	–	81	–	5,299	1,777	2,979	2,138	422	45	–	110
Menominee	3	–	–	188	2	147	6,489	–	63	482	7,374	1,662	4,315	399	293	5	–	370
Oconto	51	–	–	607	132	1,222	434	–	104	–	2,550	4,293	2,296	640	14	2	–	1,130
Oneida	160	–	1	271	990	7,430	2,964	–	8	19	11,843	402	1,152	908	51	–	–	–
Shawano	8	–	1	34	19	1,630	891	–	376	85	3,045	1,500	5,885	349	366	30	–	149
Vilas	187	–	–	455	3,397	5,899	2,951	45	17	2	12,952	267	1,320	1,537	68	–	–	–
Total	906	–	15	2,785	6,607	26,410	15,938	47	739	1,308	54,755	14,722	38,251	10,234	2,259	191	–	1,788
Northwest																		
Ashland	360	–	1	741	13	2,310	650	–	11	7	4,093	785	2,439	947	181	9	–	–
Barron	0	–	3	6	622	1,026	881	–	–	–	2,537	829	1,082	140	7	38	2	–
Bayfield	107	–	–	67	1,088	7,449	1,664	–	1	25	10,400	582	1,831	1,128	154	9	–	–
Burnett	–	–	–	–	3,962	1,436	386	–	–	–	5,784	12	36	–	2	–	–	–
Douglas	4	–	–	32	524	7,048	339	–	1	–	7,948	13	33	248	4	–	–	–
Iron	38	–	–	327	4,311	2,420	141	–	–	4	7,242	453	2,215	502	232	–	–	–
Polk	–	–	–	–	1,488	176	17	–	–	–	1,681	180	275	23	–	3	–	–
Price	217	–	55	87	617	2,246	227	–	5	7	3,461	898	1,791	621	148	16	–	–
Rusk	0	–	–	5	–	976	199	–	–	–	1,181	1,444	1,716	446	70	86	60	–
Sawyer	5	–	–	8	490	5,252	942	–	–	5	6,702	1,410	2,978	1,871	172	1	–	–
Taylor	7	–	13	176	–	888	166	–	–	4	1,254	1,341	833	214	60	10	–	–
Washburn	0	–	–	6	1,450	3,040	701	–	2	–	5,199	129	581	235	9	–	15	3
Total	740	–	72	1,456	14,565	34,267	6,312	–	21	51	57,484	8,076	15,810	6,375	1,039	173	77	3

Southeast																		
Brown	–	–	–	–	–	413	38	–	10	12	472	237	143	13	1	55	–	36
Calumet	–	–	–	3	–	–	22	–	–	–	25	228	147	–	–	6	–	26
Columbia	–	–	–	–	–	52	69	–	–	–	121	199	15	–	–	38	6	–
Dane	–	–	–	1	–	23	6	–	1	–	31	9	106	–	–	80	6	–
Dodge	–	–	–	–	–	2	10	–	3	–	16	107	95	–	–	8	0	–
Door	–	–	–	–	2	60	128	–	100	13	304	258	435	173	63	1	–	152
Fond Du Lac	–	–	–	1	–	–	–	–	–	–	1	275	284	–	–	9	1	32
Green	–	–	–	–	–	–	3	–	–	–	3	36	88	–	–	12	–	–
Green Lake	1	–	–	3	–	40	33	–	1	–	79	61	101	2	1	2	–	–
Jefferson	–	–	–	–	–	–	–	–	–	–	–	83	11	–	–	1	2	–
Kenosha	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Kewaunee	–	–	11	–	–	5	71	–	77	87	251	885	516	173	27	2	–	255
Manitowoc	–	–	–	19	–	12	184	–	54	48	317	626	1,481	56	102	27	1	110
Milwaukee	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Outagamie	–	–	–	–	–	5	65	–	26	11	107	676	33	76	1	12	–	55
Ozaukee	–	–	–	–	–	–	–	–	1	–	1	75	14	8	–	11	–	–
Racine	–	–	–	–	–	–	–	–	–	–	–	4	10	–	–	1	–	–
Rock	–	–	–	1	–	1	1	–	1	–	6	13	17	–	–	77	3	–
Sheboygan	–	–	–	–	–	177	63	–	5	–	245	277	578	16	9	19	–	92
Walworth	–	–	–	–	–	–	–	–	–	–	–	–	55	–	–	–	–	–
Washington	–	–	–	–	–	–	8	–	0	–	8	296	358	–	–	5	7	14
Waukesha	–	–	–	–	–	–	54	–	2	–	56	107	105	–	–	11	0	11
Winnebago	–	–	–	–	–	–	–	–	–	–	–	17	10	–	–	–	–	–
Total	1	–	11	29	2	792	756	–	283	171	2,044	4,469	4,604	516	204	379	26	782
Southwest																		
Buffalo	–	–	–	–	–	59	–	–	–	–	59	397	56	25	–	301	10	–
Crawford	–	–	–	–	–	–	5	–	–	–	5	503	1,114	4	1	255	41	–
Dunn	–	–	–	72	46	2,525	332	–	–	–	2,974	647	927	25	2	28	5	–
Grant	–	–	–	–	–	–	16	–	–	–	16	247	578	–	–	171	17	–
Iowa	–	–	–	–	–	–	106	–	–	–	106	126	254	1	–	75	26	–
La Crosse	–	–	–	–	–	45	17	–	–	–	63	198	313	46	–	203	26	–
Lafayette	–	–	–	–	–	–	2	–	–	–	2	3	–	–	–	3	–	–
Pepin	–	–	–	–	–	170	275	–	–	–	445	120	282	1	–	31	12	–
Pierce	–	5	–	–	–	5	–	–	–	–	10	65	1,880	13	–	46	1	–
Richland	–	–	–	–	–	5	17	–	–	–	22	449	1,663	5	–	303	17	–
Sauk	–	10	–	–	1	759	30	–	–	–	800	741	528	5	–	183	6	–
St Croix	–	18	–	–	11	691	479	–	–	–	1,199	8	365	22	–	6	–	–
Trempealeau	–	–	–	–	–	366	97	–	–	–	463	199	139	6	–	88	2	–
Vernon	–	–	–	–	–	190	248	–	–	–	438	215	1,628	2	–	226	2	–
Total	–	34	–	72	58	4,814	1,625	–	–	–	6,602	3,918	9,726	156	3	1,921	164	–
All units	1,688	34	98	4,548	21,960	82,017	33,902	47	1,085	1,590	146,969	46,003	79,067	18,433	4,181	3,198	268	2,623

(Table 12 continued on next page)

(Table 12 continued)

Unit and county	Ash	Butternut	Black walnut	Cottonwood	Balsam poplar	Aspen	Black cherry	Other cherry	Red oak	White oak	Black locust	Willow	Bass-wood	Elm	Other hardwoods	Total hardwoods	All species
Central																	
Adams	68	5	–	–	–	919	2	–	2,077	360	–	–	12	1	–	3,508	4,565
Chippewa	212	2	–	–	–	2,271	26	–	6,195	1,035	–	–	582	27	–	12,679	15,177
Clark	240	3	–	–	–	2,252	37	–	3,706	1,327	–	–	445	15	–	10,236	13,221
Eau Claire	44	2	–	–	–	450	49	–	4,259	1,217	–	–	36	4	–	6,777	8,685
Jackson	168	15	–	–	–	959	57	–	6,800	1,731	–	–	227	33	–	11,290	14,777
Juneau	283	14	–	–	–	644	34	–	3,711	1,423	2	–	195	48	–	7,592	9,505
Marathon	1,103	2	–	–	–	3,474	52	–	3,127	272	–	–	3,342	2	–	22,237	23,390
Marquette	22	1	–	–	–	9	5	–	737	472	–	–	4	26	–	1,363	1,933
Monroe	144	3	–	–	–	571	107	–	9,234	2,125	–	–	167	127	–	14,647	18,261
Portage	219	21	–	–	–	1,318	17	–	1,744	397	–	–	303	13	–	6,157	7,501
Waupaca	469	18	–	16	–	1,910	11	–	1,970	960	–	–	569	12	–	8,623	10,079
Waushara	36	–	–	–	–	155	–	–	1,346	685	–	–	83	–	–	2,529	5,552
Wood	248	11	–	–	–	1,141	21	–	2,626	717	–	–	363	29	–	7,048	8,126
Total	3,255	97	–	16	–	16,074	417	–	47,530	12,723	2	–	6,328	337	–	114,688	140,772
Northeast																	
Florence	78	–	–	–	–	4,504	60	–	536	20	–	–	339	–	–	8,457	9,846
Forest	1,012	6	–	–	–	5,030	185	–	671	24	–	–	1,840	24	–	19,536	24,964
Langlade	1,628	2	–	–	–	6,207	115	–	1,656	40	–	–	3,669	3	–	27,196	30,078
Lincoln	316	3	–	–	–	3,299	4	–	885	75	–	–	469	6	–	8,086	10,080
Marinette	962	–	–	–	60	8,438	78	–	3,906	56	–	–	2,219	204	–	23,394	28,692
Menominee	181	56	–	22	–	1,115	89	–	2,410	195	–	–	1,440	8	–	12,560	19,934
Oconto	357	–	–	32	–	5,802	1	–	2,875	863	–	–	206	210	–	18,722	21,271
Oneida	171	–	–	–	–	3,584	58	–	674	29	–	–	297	3	–	7,328	19,172
Shawano	1,241	45	–	5	–	1,383	122	–	4,169	228	–	–	1,690	26	–	17,191	20,235
Vilas	27	–	–	–	–	4,056	29	–	1,479	18	–	–	240	1	–	9,044	21,996
Total	5,973	113	–	59	60	43,420	740	–	19,261	1,550	–	–	12,408	484	–	151,513	206,269
Northwest																	
Ashland	371	–	–	–	–	2,102	24	–	1,633	94	–	–	1,050	11	–	9,648	13,741
Barron	187	1	–	2	–	2,282	4	–	2,850	1,028	–	–	401	17	–	8,871	11,408
Bayfield	331	7	–	–	–	1,755	24	–	3,212	80	–	–	648	9	–	9,771	20,171
Burnett	1	–	–	–	–	1,392	–	–	378	70	–	–	25	–	–	1,916	7,700
Douglas	15	–	–	–	–	1,367	–	–	575	11	–	–	19	–	–	2,285	10,233
Iron	179	–	–	–	18	961	40	–	422	33	–	–	574	–	–	5,630	12,871
Polk	81	–	–	–	–	1,086	14	–	1,622	437	–	–	208	1	–	3,930	5,611
Price	332	1	–	–	–	2,707	15	10	652	52	–	–	480	–	–	7,724	11,185
Rusk	536	1	–	–	–	5,456	12	–	2,860	404	–	–	765	28	–	13,886	15,067
Sawyer	840	6	–	–	–	4,627	18	–	2,919	305	–	–	1,555	11	–	16,710	23,412
Taylor	224	1	–	–	–	1,516	27	4	911	96	–	–	505	2	–	5,744	6,998
Washburn	135	3	–	–	–	2,954	2	–	2,650	651	–	–	512	–	–	7,881	13,080
Total	3,234	20	–	2	18	28,206	181	14	20,684	3,261	–	–	6,742	79	–	93,995	151,479

Southeast																		
Brown	109	5	–	119	32	193	35	–	325	172	–	–	57	22	–	1,552	2,024
Calumet	70	–	–	4	–	4	–	–	90	120	–	–	69	3	–	767	792
Columbia	83	8	–	5	–	188	357	–	1,492	1,002	–	–	40	44	–	3,479	3,600
Dane	27	–	23	6	–	19	111	–	932	957	–	–	87	61	8	2,432	2,463
Dodge	163	–	0	–	–	4	32	–	447	165	–	6	167	33	–	1,227	1,243
Door	271	–	–	56	11	85	1	–	215	–	–	–	72	5	–	1,798	2,102
Fond Du Lac	64	2	11	–	–	216	91	–	337	275	–	–	74	32	–	1,704	1,706
Green	74	–	19	–	–	2	33	–	273	327	–	–	39	69	–	972	975
Green Lake	29	14	–	2	–	13	15	–	220	132	–	–	22	27	2	644	722
Jefferson	209	1	21	–	–	–	32	–	114	145	–	10	84	35	–	748	748
Kenosha	2	–	–	–	–	–	18	–	25	52	–	–	5	–	–	104	104
Kewaunee	352	–	–	58	28	102	8	–	92	17	–	4	119	13	–	2,651	2,902
Manitowoc	320	–	–	47	11	89	37	–	611	62	–	–	384	14	–	3,977	4,294
Milwaukee	2	–	1	–	–	–	–	–	3	–	–	–	–	–	–	6	6
Outagamie	160	–	–	56	–	591	12	–	124	114	–	12	110	4	–	2,036	2,143
Ozaukee	97	–	–	–	–	–	–	–	221	66	–	–	30	–	–	522	523
Racine	10	–	–	–	–	–	5	–	83	66	–	10	1	26	–	216	216
Rock	28	4	47	3	–	1	239	–	382	505	–	–	13	54	–	1,385	1,391
Sheboygan	305	13	–	–	–	58	21	–	462	152	–	–	172	15	–	2,189	2,434
Walworth	2	2	–	1	–	–	2	–	6	–	–	–	9	2	–	80	80
Washington	185	0	–	0	–	20	7	–	570	159	–	4	164	46	–	1,834	1,842
Waukesha	79	–	3	–	–	–	–	–	309	70	–	4	29	2	–	731	788
Winnebago	42	–	–	–	–	8	–	–	66	11	–	–	41	–	–	194	194
Total	2,683	50	126	358	82	1,593	1,055	–	7,399	4,569	–	50	1,790	508	10	31,249	33,293
Southwest																		
Buffalo	45	1	9	147	–	1,113	267	–	6,236	2,494	–	2	174	82	–	11,359	11,418
Crawford	295	–	425	29	–	121	164	–	4,646	1,806	–	–	540	183	92	10,220	10,225
Dunn	216	2	–	–	–	1,206	71	–	3,544	731	–	–	288	12	–	7,701	10,675
Grant	227	1	120	264	–	237	45	–	3,560	1,322	–	49	510	182	9	7,540	7,556
Iowa	121	1	244	11	–	162	89	–	2,771	1,655	–	–	157	95	21	5,810	5,915
La Crosse	33	17	13	5	–	176	115	–	2,715	948	1	–	181	155	–	5,146	5,209
Lafayette	9	–	7	–	–	–	7	–	103	134	–	–	17	–	–	283	285
Pepin	52	2	5	4	–	462	24	–	1,754	710	–	–	177	19	–	3,655	4,099
Pierce	85	2	–	45	–	426	18	–	2,317	520	–	–	496	25	–	5,940	5,950
Richland	325	2	80	5	–	410	82	–	3,288	1,324	–	–	500	158	173	8,782	8,805
Sauk	279	2	11	–	–	906	163	–	4,848	1,925	–	–	518	191	12	10,317	11,116
St Croix	16	–	–	11	–	450	–	–	774	269	–	–	176	22	–	2,117	3,317
Trempealeau	45	3	0	148	–	356	165	–	4,658	1,292	–	11	116	110	–	7,340	7,803
Vernon	245	3	32	27	–	336	90	–	3,492	1,350	–	6	352	115	12	8,133	8,571
Total	1,994	37	946	696	–	6,361	1,299	–	44,705	16,479	1	68	4,202	1,350	318	94,343	100,945
All units	17,139	317	1,072	1,131	160	95,653	3,691	14	139,580	38,582	3	118	31,470	2,758	327	485,788	632,757

† *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 13. --Saw log receipts by Forest Survey Unit, species group, and State of origin, Wisconsin, 1999

(In thousand board feet) [1]

	ALL UNITS							
Species	Total	Illinois	Iowa	Michigan	Minnesota	Wisconsin	Other U.S.	Canada
Softwoods								
Balsam fir	868	–	–	148	–	720	–	–
Redcedar	34	–	–	–	–	34	–	–
Tamarack	161	–	–	64	–	98	–	–
Spruce	2,122	–	–	850	–	1,266	–	6
Jack pine	7,835	–	–	334	–	7,501	–	–
Red pine	70,205	134	–	4,930	151	64,989	–	2
White pine	32,948	–	–	1,089	–	31,850	–	8
Other pine	94	–	–	4	43	47	–	–
N. white-cedar	633	–	–	–	–	633	–	–
Hemlock	1,815	–	–	217	–	1,590	–	8
Total	116,714	134	–	7,636	193	108,728	–	24
Hardwoods								
Soft maple	48,802	–	166	3,415	454	44,651	–	115
Hard maple	89,889	–	1,258	10,473	646	75,638	–	1,874
Paper birch	19,983	–	9	2,568	35	17,354	–	18
Yellow birch	5,462	–	–	1,261	–	4,037	–	165
Hickory	3,039	–	59	–	149	2,831	–	–
Hackberry	207	–	10	–	26	171	–	–
Beech	2,606	–	–	1	–	2,604	–	1
Ash	17,730	–	154	681	147	16,718	–	29
Butternut	327	–	2	–	8	317	–	–
Black walnut	669	–	230	–	–	439	–	–
Cottonwood	827	–	1	–	–	826	–	–
Balsam poplar	142	–	–	–	–	142	–	–
Aspen	102,373	–	220	7,251	289	94,580	32	–
Black cherry	3,897	–	118	246	149	3,378	–	5
Other cherry	14	–	–	–	–	14	–	–
Red oak	147,032	–	3,727	2,007	8,810	131,956	16	516
White oak	41,149	–	1,432	142	2,863	36,711	–	1
Black locust	4	–	–	–	1	3	–	–
Basswood	33,992	–	645	2,146	285	30,489	–	426
Elm	2,879	–	138	–	147	2,594	–	–
Other hardwoods	327	–	–	–	–	327	–	–
Total	521,350	–	8,171	30,190	14,008	465,782	49	3,151
All species	638,065	134	8,171	37,826	14,201	574,510	49	3,175

(Table 13 continued on next page)

(Table 13 continued)

Species	Total	Illinois	Iowa	Michigan	Minnesota	Wisconsin	Other U.S.	Canada
				CENTRAL UNIT				
Softwoods								
Balsam fir	60	–	–	–	–	60	–	–
Spruce	302	–	–	–	–	302	–	–
Jack pine	229	–	–	–	–	229	–	–
Red pine	6,607	–	–	–	–	6,607	–	–
White pine	8,761	–	–	–	–	8,761	–	–
N. white-cedar	68	–	–	–	–	68	–	–
Hemlock	287	–	–	216	–	71	–	–
Total	16,315	–	–	216	–	16,099	–	–
Hardwoods								
Soft maple	13,349	–	–	–	–	13,349	–	–
Hard maple	9,879	–	–	–	–	9,629	–	250
Paper birch	963	–	–	–	–	963	–	–
Yellow birch	524	–	–	–	–	524	–	–
Hickory	382	–	–	–	–	382	–	–
Beech	52	–	–	–	–	52	–	–
Ash	3,295	–	–	–	–	3,295	–	–
Butternut	111	–	–	–	–	111	–	–
Black walnut	0	–	–	–	–	0	–	–
Cottonwood	22	–	–	–	–	22	–	–
Aspen	15,577	–	–	–	–	15,577	–	–
Black cherry	231	–	–	–	–	231	–	–
Red oak	34,289	–	6	–	–	34,233	–	50
White oak	7,887	–	–	–	–	7,887	–	–
Basswood	6,465	–	–	–	–	6,465	–	–
Elm	130	–	–	–	–	130	–	–
Total	93,156	–	6	–	–	92,850	–	300
All species	109,471	–	6	216	–	108,948	–	300

(Table 13 continued on next page)

(Table 13 continued)

NORTHEAST UNIT

Species	Total	Illinois	Iowa	Michigan	Minnesota	Wisconsin	Other U.S.	Canada
Softwoods								
Balsam fir	756	–	–	148	–	608	–	–
Tamarack	144	–	–	64	–	81	–	–
Spruce	1,727	–	–	850	–	871	–	6
Jack pine	4,235	–	–	334	–	3,901	–	–
Red pine	12,552	–	–	2,720	–	9,830	–	2
White pine	17,332	–	–	1,003	–	16,321	–	8
Other pine	52	–	–	4	–	47	–	–
N. white-cedar	287	–	–	–	–	287	–	–
Hemlock	1,379	–	–	1	–	1,369	–	8
Total	38,463	–	–	5,123	–	33,315	–	24
Hardwoods								
Soft maple	20,824	–	–	2,789	–	17,920	–	115
Hard maple	47,840	–	–	6,214	–	40,068	–	1,559
Paper birch	13,996	–	–	2,414	–	11,564	–	18
Yellow birch	3,265	–	–	587	–	2,512	–	165
Hickory	201	–	–	–	–	201	–	–
Beech	1,809	–	–	1	–	1,807	–	1
Ash	6,219	–	–	321	–	5,868	–	29
Butternut	120	–	–	–	–	120	–	–
Cottonwood	46	–	–	–	–	46	–	–
Balsam poplar	60	–	–	–	–	60	–	–
Aspen	53,605	–	–	7,029	–	46,544	32	–
Black cherry	981	–	–	183	–	793	–	5
Red oak	21,238	–	–	1,021	–	19,735	16	466
White oak	2,781	–	–	50	–	2,730	–	1
Basswood	14,979	–	–	1,273	–	13,280	–	426
Elm	480	–	–	–	–	480	–	–
Total	188,442	–	–	21,881	–	163,726	49	2,786
All species	226,905	–	–	27,004	–	197,042	49	2,811

(Table 13 continued on next page)

(Table 13 continued)

NORTHWEST UNIT

Species	Total	Illinois	Iowa	Michigan	Minnesota	Wisconsin	Other U.S.	Canada
Softwoods								
Balsam fir	52	–	–	–	–	52	–	–
Tamarack	3	–	–	–	–	3	–	–
Spruce	10	–	–	–	–	10	–	–
Jack pine	3,153	–	–	–	–	3,153	–	–
Red pine	49,049	134	–	2,146	151	46,619	–	–
White pine	2,934	–	–	11	–	2,923	–	–
N. white-cedar	19	–	–	–	–	19	–	–
Hemlock	9	–	–	–	–	9	–	–
Total	55,228	134	–	2,156	151	52,788	–	–
Hardwoods								
Soft maple	4,557	–	–	626	22	3,909	–	–
Hard maple	14,694	–	–	4,260	22	10,348	–	65
Paper birch	4,216	–	–	154	–	4,061	–	–
Yellow birch	1,411	–	–	673	–	737	–	–
Hickory	132	–	–	–	–	132	–	–
Hackberry	77	–	–	–	–	77	–	–
Ash	2,847	–	–	360	–	2,488	–	–
Butternut	18	–	–	–	–	18	–	–
Cottonwood	2	–	–	–	–	2	–	–
Aspen	25,946	–	–	222	–	25,723	–	–
Black cherry	138	–	–	63	–	75	–	–
Other cherry	14	–	–	–	–	14	–	–
Red oak	13,124	–	–	986	162	11,976	–	–
White oak	2,160	–	–	92	86	1,982	–	–
Basswood	5,762	–	–	873	86	4,803	–	–
Elm	6	–	–	–	–	6	–	–
Total	75,104	–	–	8,309	378	66,352	–	65
All species	130,332	134	–	10,466	529	119,140	–	65

(Table 13 continued on next page)

(Table 13 continued)

Species	Total	Illinois	Iowa	Michigan	Minnesota	Wisconsin	Other U.S.	Canada
				SOUTHEAST UNIT				
Softwoods								
Tamarack	11	–	–	–	–	11	–	–
Spruce	11	–	–	–	–	11	–	–
Red pine	188	–	–	65	–	123	–	–
White pine	838	–	–	76	–	763	–	–
N. white-cedar	259	–	–	–	–	259	–	–
Hemlock	140	–	–	–	–	140	–	–
Total	1,447	–	–	140	–	1,307	–	–
Hardwoods								
Soft maple	4,767	–	–	–	–	4,767	–	–
Hard maple	4,284	–	–	–	–	4,284	–	–
Paper birch	646	–	–	–	–	646	–	–
Yellow birch	262	–	–	–	–	262	–	–
Hickory	351	–	–	–	–	351	–	–
Hackberry	22	–	1	–	–	20	–	–
Beech	745	–	–	–	–	745	–	–
Ash	3,170	–	–	–	–	3,170	–	–
Butternut	48	–	–	–	–	48	–	–
Black walnut	110	–	3	–	–	107	–	–
Cottonwood	350	–	1	–	–	349	–	–
Balsam poplar	82	–	–	–	–	82	–	–
Aspen	1,386	–	–	–	–	1,386	–	–
Black cherry	983	–	1	–	–	981	–	–
Red oak	8,686	–	6	–	–	8,680	–	–
White oak	4,800	–	6	–	–	4,794	–	–
Basswood	1,812	–	–	–	–	1,812	–	–
Elm	504	–	–	–	–	504	–	–
Other hardwoods	2	–	–	–	–	2	–	–
Total	33,010	–	18	–	–	32,992	–	–
All species	34,457	–	18	140	–	34,299	–	–

(Table 13 continued on next page)

(Table 13 continued)

SOUTHWEST UNIT

Species	Total	Illinois	Iowa	Michigan	Minnesota	Wisconsin	Other U.S.	Canada
Softwoods								
Redcedar	34	–	–	–	–	34	–	–
Tamarack	3	–	–	–	–	3	–	–
Spruce	72	–	–	–	–	72	–	–
Jack pine	217	–	–	–	–	217	–	–
Red pine	1,810	–	–	–	–	1,810	–	–
White pine	3,083	–	–	–	–	3,083	–	–
Other pine	43	–	–	–	43	–	–	–
Total	5,261	–	–	–	43	5,219	–	–
Hardwoods								
Soft maple	5,306	–	166	–	432	4,708	–	–
Hard maple	13,192	–	1,258	–	624	11,310	–	–
Paper birch	163	–	9	–	35	120	–	–
Hickory	1,974	–	59	–	149	1,765	–	–
Hackberry	108	–	9	–	26	73	–	–
Ash	2,198	–	154	–	147	1,897	–	–
Butternut	30	–	2	–	8	20	–	–
Black walnut	559	–	227	–	–	332	–	–
Cottonwood	407	–	–	–	–	407	–	–
Aspen	5,859	–	220	–	289	5,349	–	–
Black cherry	1,564	–	117	–	149	1,298	–	–
Red oak	69,695	–	3,715	–	8,648	57,332	–	–
White oak	23,521	–	1,427	–	2,777	19,318	–	–
Black locust	4	–	–	–	1	3	–	–
Basswood	4,973	–	645	–	199	4,130	–	–
Elm	1,760	–	138	–	147	1,474	–	–
Other hardwoods	325	–	–	–	–	325	–	–
Total	131,638	–	8,146	–	13,630	109,862	–	–
All species	136,899	–	8,146	–	13,672	115,081	–	–

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 14.--Veneer log and bolt production and receipts, Wisconsin, 1946-1999

(In thousand board feet) [1]

Year	Production	Receipts
1946	29,267	68,116
1948	32,026	71,791
1950	26,652	62,935
1952	29,956	59,500
1954	27,109	59,573
1956	30,403	66,949
1958	23,740	43,063
1960	25,467	51,298
1963	21,919	37,517
1965	25,203	41,918
1966	23,782	43,104
1968	22,867	42,162
1969	21,037	37,571
1970	15,814	29,896
1972	19,465	36,491
1974	32,224	37,804
1975	37,342	41,605
1976	31,692	33,294
1977	31,685	36,971
1978	20,863	27,903
1980	27,250	34,540
1984	22,989	33,403
1986	26,203	37,607
1988	42,678	42,618
1990	44,227	44,177
1992	52,210	49,206
1994	52,269	59,620
1996	33,609	52,156
1999	42,264	45,830

[1] *International 1/4-inch rule.*

Table 15.--Veneer log and bolt production and receipts by species group, Wisconsin, 1996 and 1999

(In thousand board feet) [1]

Species group	Production			Receipts		
	1996	1999	Change	1996	1999	Change
Softwoods						
Jack pine	3	143	4667%	–	–	–
Red pine	79	629	696%	78	78	0%
White pine	163	539	231%	209	136	-35%
N. white-cedar	8	8	0%	8	8	0%
Spruce	–	750	–	–	–	–
Tamarack	–	–	–	–	–	–
Total	253	2,069	718%	295	222	-25%
Hardwoods						
Ash	272	44	-84%	386	87	-77%
Aspen	3,732	12,640	239%	3,915	2,412	-38%
Balsam poplar	17	19	12%	17	19	12%
Basswood	1,288	2,647	106%	2,576	3,923	52%
Beech	46	32	-30%	71	7	-90%
Paper birch	6,326	6,373	1%	8,169	7,791	-5%
Yellow birch	532	393	-26%	1,381	1,198	-13%
River birch	1	–	–	–	–	–
Cottonwood	16	33	106%	16	37	131%
Hickory	13	58	346%	27	112	315%
Hard maple	8,722	5,980	-31%	17,278	13,783	-20%
Soft maple	685	892	30%	1,635	1,968	20%
Red oak	9,044	10,357	15%	13,658	13,909	2%
White oak	2,272	325	-86%	2,523	222	-91%
Black walnut	28	85	204%	4	7	75%
Black cherry	351	316	-10%	197	–	–
Elm	10	–	–	10	–	–
Total	33,355	40,195	21%	51,861	45,608	-12%
All species	33,609	42,264	26%	52,156	45,830	-12%

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 16.-- Veneer log and bolt production in Wisconsin by species group and State or country of destination, 1999

(In thousand board feet) [1]

	ALL UNITS									
Species	Total	Illinois	Indiana	Iowa	Michigan	Wisconsin	Ohio	Other U.S.	Canada	Other foreign
Softwoods										
Spruce	750	–	–	–	750	–	–	–	–	–
Jack pine	143	–	–	–	140	–	3	–	–	–
Red pine	629	–	–	–	550	78	1	–	–	–
White pine	539	–	–	–	415	123	1	–	–	–
N. white-cedar	8	–	–	–	–	8	–	–	–	–
Total	2,069	–	–	–	1,855	209	5	–	–	–
Hardwoods										
Soft maple	892	–	–	–	–	892	–	1	–	–
Hard maple	5,980	57	60	–	500	5,223	–	139	–	1
Paper birch	6,373	–	34	–	20	6,319	–	–	–	–
Yellow birch	393	–	–	–	–	393	–	–	–	–
Hickory	58	–	–	–	–	58	–	–	–	–
Beech	32	–	32	–	–	–	–	–	–	–
Ash	44	–	21	–	–	23	–	–	–	1
Black walnut	85	–	56	–	7	–	–	–	–	22
Cottonwood	33	–	–	–	–	33	–	–	–	–
Balsam poplar	19	–	–	–	–	19	–	–	–	–
Aspen	12,640	–	–	–	10,500	2,140	–	–	–	–
Black cherry	316	–	132	–	62	121	–	1	–	–
Red oak	10,357	–	48	57	253	9,938	–	–	59	1
White oak	325	–	65	–	90	165	–	3	–	1
Basswood	2,647	–	–	–	–	2,647	–	–	–	–
Total	40,195	57	448	57	11,432	27,971	–	145	59	26
All species	42,264	57	448	57	13,287	28,179	5	145	59	26

(Table 16 continued on next page)

(Table 16 continued)

Species	Total	CENTRAL UNIT								
		Illinois	Indiana	Iowa	Michigan	Wisconsin	Ohio	Other U.S.	Canada	Other foreign
Softwoods										
Jack pine	0	–	–	–	–	–	0	–	–	–
Red pine	26	–	–	–	–	26	0	–	–	–
White pine	32	–	–	–	–	32	0	–	–	–
Total	59	–	–	–	–	58	0	–	–	–
Hardwoods										
Soft maple	562	–	–	–	–	562	–	–	–	–
Hard maple	905	–	8	–	–	896	–	–	–	0
Paper birch	195	–	–	–	–	195	–	–	–	–
Ash	1	–	1	–	–	–	–	–	–	0
Black walnut	28	–	23	–	–	–	–	–	–	5
Aspen	143	–	–	–	–	143	–	–	–	–
Black cherry	36	–	36	–	–	–	–	–	–	–
Red oak	2,493	–	–	–	–	2,493	–	–	–	–
White oak	3	–	3	–	–	–	–	–	–	0
Basswood	515	–	–	–	–	515	–	–	–	–
Total	4,879	–	70	–	–	4,803	–	–	–	5
All species	4,938	–	70	–	–	4,862	0	–	–	5

(Table 16 continued on next page)

(Table 16 continued)

Species	Total	Illinois	Indiana	Iowa	Michigan	Wisconsin	Ohio	Other U.S.	Canada	Other foreign
					NORTHEAST UNIT					
Softwoods										
Spruce	610	–	–	–	610	–	–	–	–	–
Jack pine	126	–	–	–	124	–	2	–	–	–
Red pine	385	–	–	–	332	52	1	–	–	–
White pine	380	–	–	–	302	78	0	–	–	–
N. white-cedar	8	–	–	–	–	8	–	–	–	–
Total	1,508	–	–	–	1,367	138	3	–	–	–
Hardwoods										
Soft maple	204	–	–	–	–	204	–	0	–	–
Hard maple	3,783	–	44	–	500	3,210	–	28	–	1
Paper birch	3,837	–	21	–	20	3,796	–	–	–	–
Yellow birch	355	–	–	–	–	355	–	–	–	–
Beech	32	–	32	–	–	–	–	–	–	–
Ash	6	–	6	–	–	–	–	–	–	0
Black walnut	49	–	34	–	7	–	–	–	–	8
Balsam poplar	19	–	–	–	–	19	–	–	–	–
Aspen	1,281	–	–	–	1,056	225	–	–	–	–
Black cherry	99	–	23	–	62	15	–	0	–	–
Red oak	3,342	–	10	–	253	3,066	–	–	13	0
White oak	154	–	2	–	90	61	–	1	–	0
Basswood	796	–	–	–	–	796	–	–	–	–
Total	13,956	–	172	–	1,988	11,745	–	29	13	9
All species	15,464	–	172	–	3,355	11,883	3	29	13	9

(Table 16 continued on next page)

(Table 16 continued)

NORTHWEST UNIT

Species	Total	Illinois	Indiana	Iowa	Michigan	Wisconsin	Ohio	Other U.S.	Canada	Other foreign
Softwoods										
Spruce	140	–	–	–	140	–	–	–	–	–
Jack pine	17	–	–	–	16	–	1	–	–	–
Red pine	218	–	–	–	218	–	0	–	–	–
White pine	126	–	–	–	113	12	0	–	–	–
Total	502	–	–	–	488	12	1	–	–	–
Hardwoods										
Soft maple	96	–	–	–	–	96	–	–	–	–
Hard maple	679	–	3	–	–	676	–	–	–	0
Papre birch	2,228	–	13	–	–	2,214	–	–	–	–
Yellow birch	39	–	–	–	–	39	–	–	–	–
Ash	37	–	14	–	–	23	–	–	–	0
Aspen	11,210	–	–	–	9,444	1,766	–	–	–	–
Black cherry	28	–	11	–	–	17	–	–	–	–
Red oak	2,533	–	14	–	–	2,501	–	–	17	0
White oak	31	–	–	–	–	31	–	–	–	–
Basswood	900	–	–	–	–	900	–	–	–	–
Total	17,780	–	55	–	9,444	8,263	–	–	17	1
All species	18,282	–	55	–	9,932	8,275	1	–	17	1

(Table 16 continued on next page)

(Table 16 continued)

SOUTHEAST UNIT

Species	Total	Illinois	Indiana	Iowa	Michigan	Wisconsin	Ohio	Other U.S.	Canada	Other foreign
Hardwoods										
Soft maple	4	–	–	–	–	4	–	–	–	–
Hard maple	16	–	–	–	–	16	–	–	–	–
Paper birch	82	–	–	–	–	82	–	–	–	–
Aspen	6	–	–	–	–	6	–	–	–	–
Black cherry	10	–	10	–	–	–	–	–	–	–
Red oak	17	–	–	–	–	17	–	–	–	–
White oak	30	–	19	–	–	10	–	–	–	0
Total	164	–	29	–	–	135	–	–	–	0
All species	164	–	29	–	–	135	–	–	–	0

(Table 16 continued on next page)

(Table 16 continued)

Species	Total	Illinois	Indiana	Iowa	Michigan	Wisconsin	Ohio	Other U.S.	Canada	Other foreign
					SOUTHWEST UNIT					
Sofwoods										
Jack pine	0	–	–	–	–	–	0	–	–	–
Red pine	0	–	–	–	–	–	0	–	–	–
White pine	0	–	–	–	–	–	0	–	–	–
Total	0	–	–	–	–	–	0	–	–	–
Hardwoods										
Soft maple	27	–	–	–	–	26	–	1	–	–
Hard maple	598	57	5	–	–	424	–	111	–	0
Paper birch	32	–	–	–	–	32	–	–	–	–
Hickory	58	–	–	–	–	58	–	–	–	–
Black walnut	9	–	–	–	–	–	–	–	–	9
Cottonwood	33	–	–	–	–	33	–	–	–	–
Black cherry	143	–	52	–	–	89	–	1	–	–
Red oak	1,972	–	23	57	–	1,862	–	–	29	1
White oak	107	–	41	–	–	62	–	3	–	1
Basswood	437	–	–	–	–	437	–	–	–	–
Total	3,415	57	122	57	–	3,024	–	116	29	11
All species	3,415	57	122	57	–	3,024	0	116	29	11

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 17 --Veneer log production by Forest Survey Unit, county, and species group, Wisconsin, 1999

(In thousand board feet) [1]

Unit and county	Spruce	Jack pine	Red pine	White pine	N. white-cedar	Total softwoods	Soft maple	Hard maple	Paper birch	Yellow birch	Hickory	Beech	Ash	Black walnut	Cotton-wood	Balsam poplar	Aspen	Black cherry	Red oak	White oak	Bass-wood	Total hardwoods	All species
Central																							
Adams	–	–	26	26	–	52	–	–	–	–	–	–	–	–	–	–	16	–	–	–	416	432	484
Chippewa	–	–	–	6	–	6	–	338	73	–	–	–	1	–	–	–	–	13	554	1	73	1,054	1,060
Clark	–	0	0	0	–	0	208	10	–	–	–	–	–	–	–	–	–	–	572	–	–	790	791
Jackson	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	92	–	–	92	92
Juneau	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12	50	–	–	61	61
Marathon	–	–	–	–	–	–	218	337	22	–	–	–	–	14	–	–	94	11	401	–	16	1,112	1,112
Monroe	–	–	–	–	–	–	–	–	59	–	–	–	–	–	–	–	–	–	151	1	–	211	211
Portage	–	–	–	–	–	–	21	141	–	–	–	–	–	–	–	–	–	–	264	–	–	426	426
Waupaca	–	–	–	–	–	–	114	58	42	–	–	–	–	14	–	–	34	–	234	–	10	506	506
Wood	–	–	–	–	–	–	–	21	–	–	–	–	–	–	–	–	–	–	175	–	–	196	196
Total	–	0	26	32	–	59	562	905	195	–	–	–	1	28	–	–	143	36	2,493	3	515	4,879	4,938
Northeast																							
Florence	27	13	–	–	–	40	5	744	6	62	–	–	–	–	–	–	18	12	–	–	754	1,601	1,641
Forest	162	26	59	8	–	255	23	328	441	74	–	–	2	–	–	19	–	2	208	–	–	1,097	1,352
Langlade	–	13	–	–	–	13	106	1,223	295	26	–	–	–	14	–	–	104	–	848	31	31	2,678	2,691
Lincoln	44	–	–	–	–	44	23	170	420	–	–	–	–	–	–	–	147	–	–	–	–	760	805
Marinette	–	–	–	–	–	–	–	579	98	104	–	–	–	7	–	–	160	62	721	90	–	1,821	1,821
Menominee	48	2	36	242	–	327	–	24	–	–	–	–	–	–	–	–	5	–	64	2	–	96	423
Oconto	155	7	90	–	–	251	3	8	225	–	–	24	2	–	–	–	400	–	53	–	–	716	967
Oneida	60	33	105	69	4	270	23	86	1,401	62	–	–	–	–	–	–	–	–	468	–	–	2,040	2,311
Shawano	–	–	–	–	–	–	21	517	24	–	–	8	2	28	–	–	441	23	564	31	10	1,668	1,668
Vilas	114	33	95	62	4	308	–	104	927	26	–	–	–	–	–	–	6	–	416	–	–	1,479	1,787
Total	610	126	385	380	8	1,508	204	3,783	3,837	355	–	32	6	49	–	19	1,281	99	3,342	154	796	13,956	15,464
Northwest																							
Ashland	71	–	–	6	–	77	16	243	91	6	–	–	14	–	–	–	31	3	216	–	749	1,370	1,447
Barron	–	0	0	38	–	38	9	58	25	–	–	–	–	–	–	–	2,624	–	160	–	95	2,970	3,009
Bayfield	–	–	46	6	–	52	12	31	415	–	–	–	7	–	–	–	148	3	179	–	31	828	880
Burnett	–	6	–	–	–	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6
Douglas	–	–	67	–	–	67	–	–	663	–	–	–	–	–	–	–	–	–	–	–	–	663	730
Iron	54	7	42	53	–	156	9	56	46	6	–	–	–	–	–	–	–	3	4	–	–	125	280
Polk	–	2	0	15	–	18	9	46	16	–	–	–	1	–	–	–	–	–	571	–	–	642	660
Price	–	–	–	–	–	–	–	52	477	–	–	–	2	–	–	–	608	3	78	–	–	1,220	1,220
Rusk	–	–	–	–	–	–	9	46	109	–	–	–	3	–	–	–	2,773	–	759	–	5	3,703	3,703
Sawyer	–	0	33	8	–	41	32	147	268	26	–	–	8	–	–	–	2,273	15	428	31	18	3,247	3,288
Taylor	16	–	–	–	–	16	–	–	100	–	–	–	–	–	–	–	635	–	–	–	–	734	750
Washburn	–	2	31	–	–	32	–	–	20	–	–	–	1	–	–	–	2,116	–	138	–	2	2,277	2,310
Total	140	17	218	126	–	502	96	679	2,228	39	–	–	37	–	–	–	11,210	28	2,533	31	900	17,780	18,282

Southeast																									
Columbia	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	1	22	–	26	26
Dane	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	10	–	–	–	10	10
Dodge	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	8	–	8	8
Door	–	–	–	–	–	–	–	16	27	–	–	–	–	–	–	–	2	–	17	–	–	60	60
Outagamie	–	–	–	–	–	–	–	–	16	–	–	–	–	–	–	–	5	–	1	–	–	21	21
Washington	–	–	–	–	–	–	–	–	40	–	–	–	–	–	–	–	–	–	–	–	–	40	40
Total	–	–	–	–	–	–	4	16	82	–	–	–	–	–	–	–	6	10	17	30	–	164	164
Southwest																									
Buffalo	–	–	–	–	–	–	–	10	–	–	–	–	–	–	–	–	–	–	235	15	437	698	698
Crawford	–	–	–	–	–	–	–	26	–	–	2	–	–	9	–	–	–	–	276	10	–	324	324
Dunn	–	0	0	0	–	0	21	49	20	–	–	–	–	–	–	–	–	11	133	11	–	245	245
Grant	–	–	–	–	–	–	–	57	–	–	–	–	–	–	–	–	–	–	–	–	–	57	57
Iowa	–	–	–	–	–	–	5	10	–	–	–	–	–	–	–	–	–	–	74	–	–	89	89
La Crosse	–	–	–	–	–	–	–	291	–	–	52	–	–	–	–	–	–	83	813	–	–	1,240	1,240
Lafayette	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	1
Pepin	–	–	–	–	–	–	–	9	–	–	–	–	–	–	33	–	–	–	177	–	–	219	219
Richland	–	–	–	–	–	–	0	45	–	–	4	–	–	–	–	–	–	2	70	10	–	131	131
Sauk	–	–	–	–	–	–	0	40	–	–	–	–	–	–	–	–	–	19	91	53	–	203	203
Trempealeau	–	–	–	–	–	–	–	–	12	–	–	–	–	–	–	–	–	10	1	–	–	23	23
Vernon	–	–	–	–	–	–	0	59	–	–	–	–	–	–	–	–	–	17	102	8	–	185	185
Total	–	0	0	0	–	0	27	598	32	–	58	–	–	9	33	–	–	143	1,972	107	437	3,415	3,415
All counties	750	143	629	539	8	2,069	892	5,980	6,373	393	58	32	44	85	33	19	12,640	316	10,357	325	2,647	40,195	42,264

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 18-- Veneer log receipts by Forest Survey Unit, species group, and State of origin, Wisconsin, 1999

(In thousands of board feet) [1]

ALL UNITS

Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Wisconsin	Kentucky	Ohio	Other U.S.	Canada
Softwoods												
Red pine	78	–	–	–	–	–	–	78	–	–	–	–
White pine	136	–	–	–	10	–	–	123	–	–	3	–
N. white-cedar	8	–	–	–	–	–	–	8	–	–	–	–
Total	222	–	–	–	10	–	–	209	–	–	3	–
Hardwoods												
Soft maple	1,968	12	103	–	358	–	–	892	103	–	501	–
Hard maple	13,783	–	1,254	1	3,196	–	–	5,223	741	202	2,615	551
Paper birch	7,791	–	–	–	920	13	–	6,319	–	–	1	539
Yellow birch	1,198	–	–	–	371	–	–	393	–	–	109	324
Hickory	112	–	30	–	–	–	–	58	–	4	20	–
Beech	7	–	–	–	–	–	–	–	–	4	3	–
Ash	87	–	–	–	27	7	–	23	–	16	15	–
Black walnut	7	–	–	–	–	–	–	–	–	7	–	–
Cottonwood	37	–	–	–	–	4	–	33	–	–	–	–
Balsam poplar	19	–	–	–	–	–	–	19	–	–	–	–
Aspen	2,412	–	–	–	272	–	–	2,140	–	–	–	–
Black cherry	132	–	–	–	6	–	–	121	1	–	3	–
Red oak	13,909	10	114	79	1,201	57	73	9,938	57	23	1,870	487
White oak	222	2	–	–	–	21	–	165	13	21	–	–
Basswood	3,923	–	–	–	746	530	–	2,647	–	–	–	–
Total	45,608	25	1,500	80	7,097	632	73	27,971	914	277	5,137	1,901
All species	45,830	25	1,500	80	7,108	632	73	28,179	914	277	5,140	1,901

CENTRAL UNIT

Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Wisconsin	Kentucky	Ohio	Other U.S.	Canada
Hardwoods												
Soft maple	263	–	–	–	–	–	–	263	–	–	–	–
Hard maple	3,613	–	–	–	347	–	–	3,006	–	31	94	135
Yellow birch	137	–	–	–	62	–	–	62	–	–	–	12
Hickory	68	–	–	–	–	–	–	58	–	4	5	–
Beech	7	–	–	–	–	–	–	–	–	4	3	–
Ash	30	–	–	–	–	–	–	–	–	16	15	–
Black walnut	7	–	–	–	–	–	–	–	–	7	–	–
Aspen	77	–	–	–	16	–	–	61	–	–	–	–
Black cherry	102	–	–	–	–	–	–	102	–	–	–	–
Red oak	2,634	–	–	–	–	–	–	2,634	–	–	–	–
White oak	103	–	–	–	–	21	–	61	–	21	–	–
Basswood	3,536	–	–	–	577	530	–	2,428	–	–	–	–
Total	10,578	–	–	–	1,003	551	–	8,677	–	83	116	148

(Table 18 continued on next page)

(Table 18 continued)

NORTHEAST UNIT

Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Wisconsin	Kentucky	Ohio	Other U.S.	Canada
Softwoods												
Red pine	78	–	–	–	–	–	–	78	–	–	–	–
White pine	104	–	–	–	–	–	–	104	–	–	–	–
N. white-cedar	8	–	–	–	–	–	–	8	–	–	–	–
Total	190	–	–	–	–	–	–	190	–	–	–	–
Hardwoods												
Soft maple	640	–	–	–	135	–	–	437	–	–	68	–
Hard maple	5,205	–	–	–	2,371	–	–	1,680	–	–	738	416
Paper birch	7,452	–	–	–	837	10	–	6,067	–	–	–	539
Yellow birch	858	–	–	–	208	–	–	286	–	–	52	312
Aspen	270	–	–	–	–	–	–	270	–	–	–	–
Red oak	6,568	–	–	–	572	–	–	4,545	–	–	1,087	364
Basswood	120	–	–	–	52	–	–	68	–	–	–	–
Total	21112	–	–	–	4175	10	–	13352	–	–	1945	1631
All species	21,302	–	–	–	4,175	10	–	13,542	–	–	1,945	1,631

NORTHWEST UNIT

Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Wisconsin	Kentucky	Ohio	Other U.S.	Canada
Softwoods												
White pine	32	–	–	–	10	–	–	19	–	–	3	–
Total	32	–	–	–	10	–	–	19	–	–	3	–
Hardwoods												
Soft maple	1,066	12	103	–	223	–	–	192	103	–	433	–
Hard maple	4,964	–	1,254	1	477	–	–	537	741	171	1,783	–
Paper birch	339	–	–	–	83	3	–	252	–	–	1	–
Yellow birch	203	–	–	–	101	–	–	45	–	–	57	–
Hickory	44	–	30	–	–	–	–	–	–	–	15	–
Ash	57	–	–	–	27	7	–	23	–	–	–	–
Cottonwood	4	–	–	–	–	4	–	–	–	–	–	–
Balsam poplar	19	–	–	–	–	–	–	19	–	–	–	–
Aspen	2,013	–	–	–	257	–	–	1,756	–	–	–	–
Black cherry	30	–	–	–	6	–	–	19	1	–	3	–
Red oak	4,707	10	114	79	629	57	73	2,759	57	23	783	123
White oak	119	2	–	–	–	–	–	104	13	–	–	–
Basswood	267	–	–	–	116	–	–	151	–	–	–	–
Total	13832	25	1500	80	1920	72	73	5856	914	194	3076	123
All species	13,865	25	1,500	80	1,930	72	73	5,875	914	194	3,079	123

SOUTHEAST UNIT

Species	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Wisconsin	Kentucky	Ohio	Other U.S.	Canada
Hardwoods												
Cottonwood	33	–	–	–	–	–	–	33	–	–	–	–
Aspen	52	–	–	–	–	–	–	52	–	–	–	–
Total	86	–	–	–	–	–	–	86	–	–	–	–

[1] *International 1/4-inch rule.*

Rows and columns may not sum due to rounding.

Table 19.--Veneer log and bolt receipts by area of origin, Wisconsin, 1946-1999

(In thousand board feet) [1]

Year	All areas	Area of origin				
		Wisconsin	Michigan	Minnesota	Other States	Canada [2]
1946	68,116	28,813	33,834	1,139	919	3,411
1948	71,791	31,553	27,052	4,811	1,066	7,309 [3]
1950	62,935	26,198	19,917	4,919	924	10,977 [3]
1952	59,500	28,899	15,775	5,826	1,516	7,484
1954	59,573	26,527	15,537	7,962	3,286	6,261
1956	66,949	30,298	18,932	7,221	3,405	7,093
1958	43,063	23,488	8,078	7,027	916	3,554
1960	51,298	24,249	8,659	8,380	5,207	4,803
1963	37,517	18,846	4,950	6,177	2,777	4,767
1965	41,918	23,788	5,918	6,148	1,726	4,338
1966	43,104	22,547	8,044	6,111	1,621	4,781
1968	42,162	20,458	8,265	5,207	2,642	5,590
1969	37,571	18,853	8,001	3,518	2,679	4,520
1970	29,896	15,148	7,347	2,951	1,747	2,703
1972	36,491	18,172	10,893	3,457	1,552	2,417
1974	37,804	19,643	10,922	4,083	1,950	1,206
1975	41,605	24,294	10,221	3,486	1,905	1,699
1976	33,294	20,379	9,009	2,136	1,567	203
1977	36,971	20,752	10,280	3,033	2,412	494
1978	27,903	14,299	9,029	2,468	1,587	520
1980	34,540	14,245	14,058	2,501	3,008	728
1984	33,403	20,575	9,385	2,079	1,225	139
1986	37,607	23,098	13,036	758	627	88
1988	42,618	26,030	12,550	2,929	1,092	17
1990	44,177	26,972	14,368	1,712	642	483
1992	49,207	33,916	12,049	2,204	787	251
1994	59,620	35,764	16,259	2,867	4,581	148
1996	52,156	30,742	12,475	974	6,676	1,289
1999	45,830	28,179	7,108	632	8,009	1,901

[1] *International 1/4-inch rule.*

[2] *Includes only logs and bolts shipped to Canadian mills for processing.*

[3] *Includes nominal quantities from other countries.*

Rows may not sum due to rounding.

Table 20.--Cabin log production by species group and State of destination, Wisconsin, 1999

(In thousand cubic feet)

Species	All Units Total	Michigan	Wisconsin
Softwoods			
Balsam fir	2	–	2
Spruce	2	–	2
Jack pine	1	–	1
Red pine	294	3	291
White pine	412	2	411
N. white-cedar	59	–	59
Hemlock	1	–	1
Total	771	5	766
Hardwoods			
Hard maple	0	–	0
Red oak	1	–	1
Total	1	–	1
All species	772	5	767

Table 21. --Post production by species group and State of destination, Wisconsin, 1999

(In thousands of pieces)

Species	ALL UNITS Total	Michigan	Wisconsin
Softwoods			
Redcedar	1	–	1
Red pine	380	–	380
White pine	28	–	28
N. white-cedar	339	137	202
Total	748	137	610
Hardwoods			
White oak	1	–	1
Total	1	–	1
All species	749	137	611

Table 22.-- Wood material harvested for industrial roundwood by Forest Survey Unit, source of material, and species group, Wisconsin, 1999

(In thousand cubic feet)

ALL UNITS

Species group	Growing stock				Non-growing stock						Total material used for products	Total material not used	Total material harvested
	Used for products				Used for products								
	Sawtimber	Poletimber	Logging residue	Total	Limbwood	Saplings	Cull trees	Dead trees	Logging slash	Total			
Softwoods													
Balsam fir	3,597.9	2,902.7	168.4	6,669.0	282.1	145.0	42.8	225.7	2,674.4	3,370.0	7,196.3	2,842.8	10,039.1
Redcedar	6.4	1.4	0.6	8.4	0.1	0.0	0.0	–	3.0	3.2	8.0	3.5	11.6
Tamarack	563.3	488.2	26.0	1,077.4	42.4	24.7	7.3	37.7	437.8	549.8	1,163.4	463.8	1,627.2
Spruce	3,451.8	2,310.8	195.2	5,957.8	218.4	111.7	45.2	172.6	2,374.9	2,922.9	6,310.7	2,570.0	8,880.7
Jack pine	10,189.4	12,776.6	690.2	23,656.3	1,175.9	707.4	240.3	2,861.1	8,542.1	13,526.7	27,950.7	9,232.3	37,183.0
Red pine	24,180.8	11,296.5	1,050.6	36,527.9	1,566.8	891.8	632.8	337.0	10,105.1	13,533.5	38,905.7	11,155.7	50,061.4
White pine	7,729.9	2,177.7	376.7	10,284.3	306.1	158.2	124.3	79.6	3,155.0	3,823.2	10,575.9	3,531.7	14,107.6
Other pine	8.7	1.1	0.7	10.5	0.2	–	0.0	–	4.1	4.3	10.0	4.8	14.7
N. white-cedar	351.8	277.8	62.7	692.2	15.5	18.4	4.6	1.0	145.8	185.3	669.1	208.5	877.5
Hemlock	1,016.2	767.3	33.4	1,816.9	97.7	63.8	44.3	19.2	453.2	678.2	2,008.5	486.6	2,495.1
Total	51,096.3	33,000.1	2,604.3	86,700.7	3,705.1	2,121.1	1,141.6	3,734.0	27,895.3	38,597.1	94,798.1	30,499.7	125,297.8
Hardwoods													
Soft maple	12,612.9	9,061.6	1,697.9	23,372.4	1,922.3	364.3	2,134.5	1,012.4	10,606.5	16,040.1	27,108.0	12,304.5	39,412.5
Hard maple	19,044.0	7,643.9	1,952.1	28,639.9	2,537.2	112.1	1,801.8	4,535.8	13,785.5	22,772.5	35,674.9	15,737.5	51,412.4
Paper birch	5,964.3	13,443.9	1,277.7	20,685.9	1,541.0	319.6	639.9	922.6	7,665.3	11,088.4	22,831.3	8,943.0	31,774.4
Yellow birch	1,208.9	595.2	163.9	1,968.0	217.0	2.8	143.5	498.0	1,060.8	1,922.0	2,665.3	1,224.7	3,890.1
Hickory	445.1	53.4	68.8	567.3	4.2	–	14.7	63.0	273.8	355.7	580.4	342.6	923.0
Hackberry	36.6	4.5	5.6	46.7	0.3	–	1.2	5.3	22.7	29.5	47.8	28.4	76.2
Beech	501.0	167.6	71.6	740.1	53.6	0.6	40.2	150.9	388.3	633.6	913.8	459.9	1,373.6
Ash	3,914.5	1,805.8	534.2	6,254.5	608.7	15.9	394.7	1,440.9	3,283.6	5,743.8	8,180.5	3,817.8	11,998.3
Honeylocust	0.6	0.8	–	1.3	1.1	0.0	0.4	–	0.1	1.5	2.8	0.1	2.9
Butternut	43.3	5.3	6.7	55.3	0.4	–	1.4	6.3	26.9	34.9	56.6	33.6	90.2
Black walnut	158.8	17.9	24.8	201.5	1.4	–	6.0	21.1	94.7	123.2	205.2	119.5	324.7
Cottonwood	191.5	107.1	28.0	326.6	19.2	5.3	9.1	28.7	108.0	170.2	360.8	135.9	496.8
Balsam poplar	160.6	142.8	18.6	321.9	52.0	2.1	28.5	97.3	170.4	350.2	483.2	189.0	672.2
Aspen	65,920.6	35,025.9	6,248.9	107,195.4	4,836.9	221.4	5,232.1	1,552.4	35,790.0	47,632.8	112,789.4	42,038.8	154,828.2
Black cherry	551.3	63.2	86.2	700.6	7.0	0.0	21.7	72.7	327.2	428.6	715.9	413.3	1,129.2
Other cherry	–	–	–	–	10.1	0.1	60.6	20.2	226.1	317.2	91.0	226.1	317.2
Red oak	27,368.5	5,343.0	3,805.3	36,516.7	1,708.4	58.0	1,796.5	400.9	14,583.2	18,546.9	36,675.2	18,388.4	55,063.7
White oak	7,358.6	1,575.8	1,009.3	9,943.6	410.2	18.3	480.9	113.7	4,084.5	5,107.5	9,957.4	5,093.7	15,051.1
Black locust	0.4	0.1	0.1	0.6	0.0	–	0.0	0.1	0.3	0.4	0.6	0.3	0.9
Willow	25.4	19.4	3.2	48.0	4.8	0.8	2.2	7.3	18.2	33.2	59.8	21.4	81.2
Basswood	6,201.8	2,176.4	904.7	9,283.0	620.4	32.0	473.9	1,622.7	4,448.2	7,197.2	11,127.2	5,352.9	16,480.1
Elm	1,554.1	1,128.2	189.9	2,872.3	434.7	7.1	253.4	894.4	1,626.0	3,215.5	4,271.8	1,815.9	6,087.7
Other hardwoods	44.7	5.5	6.9	57.0	10.4	0.1	59.4	26.3	245.6	341.8	146.3	252.5	398.8
Total	153,307.5	78,387.1	18,104.2	249,798.8	15,001.2	1,160.5	13,596.3	13,492.8	98,835.7	142,086.5	274,945.4	116,939.9	391,885.3
All species	204,403.8	111,387.2	20,708.5	336,499.5	18,706.3	3,281.6	14,737.9	17,226.8	126,731.0	180,683.6	369,743.6	147,439.6	517,183.2

(Table 22 continued on next page)

(Table 22 continued)

CENTRAL UNIT

Species group	Growing stock				Non-growing stock						Total material used for products	Total material not used	Total material harvested
	Used for products				Used for products								
	Sawtimber	Poletimber	Logging residue	Total	Limbwood	Saplings	Cull trees	Dead trees	Logging slash	Total			
Softwoods													
Balsam fir	43.4	32.9	2.2	78.5	2.9	1.6	0.5	2.5	31.8	39.3	83.8	34.0	117.8
Tamarack	25.6	22.8	1.2	49.6	2.0	1.2	0.3	1.8	20.2	25.4	53.7	21.3	75.1
Spruce	195.4	145.3	10.0	350.6	12.8	7.1	2.1	10.9	141.9	174.9	373.6	151.9	525.5
Jack pine	2,127.4	4,023.9	135.3	6,286.7	358.7	231.2	77.1	934.3	2,230.3	3,831.7	7,752.7	2,365.6	10,118.3
Red pine	7,477.7	4,881.8	271.6	12,631.1	702.6	399.2	276.4	135.7	3,180.9	4,694.8	13,873.5	3,452.5	17,325.9
White pine	2,667.4	988.3	120.0	3,775.6	133.9	75.6	54.7	31.8	1,108.6	1,404.6	3,951.7	1,228.6	5,180.2
N. white-cedar	7.8	1.0	0.6	9.3	0.1	–	0.0	–	3.7	3.8	8.9	4.2	13.1
Hemlock	63.2	53.5	1.9	118.6	6.8	4.5	3.1	1.3	28.6	44.3	132.4	30.5	162.9
Total	12,607.9	10,149.6	542.6	23,300.2	1,219.8	720.4	414.3	1,118.3	6,746.0	10,218.8	26,230.3	7,288.6	33,518.9
Hardwoods													
Soft maple	3,029.2	1,420.8	434.7	4,884.7	288.5	49.4	363.0	306.1	2,290.2	3,297.3	5,457.0	2,724.9	8,182.0
Hard maple	2,693.7	1,078.9	280.0	4,052.6	376.8	11.4	268.8	698.8	2,009.0	3,364.7	5,128.3	2,289.0	7,417.3
Paper birch	472.3	1,532.9	114.3	2,119.4	172.3	34.8	61.2	88.2	796.6	1,153.1	2,361.6	910.8	3,272.5
Yellow birch	177.4	87.4	23.8	288.6	31.7	0.3	20.4	74.3	158.5	285.2	391.5	182.3	573.8
Hickory	73.0	8.9	11.2	93.2	0.7	–	2.3	10.5	45.4	58.9	95.5	56.6	152.1
Hackberry	0.1	0.0	0.0	0.2	0.0	–	0.0	0.0	0.1	0.1	0.2	0.1	0.3
Beech	14.0	7.3	1.9	23.2	2.7	0.0	1.7	6.2	12.8	23.4	31.9	14.7	46.6
Ash	722.1	311.2	99.4	1,132.7	107.3	1.8	71.3	261.3	602.9	1,044.6	1,475.0	702.3	2,177.2
Butternut	13.2	1.6	2.0	16.9	0.1	–	0.4	1.9	8.2	10.7	17.3	10.3	27.5
Black walnut	4.1	–	0.8	4.8	0.0	–	0.4	–	1.2	1.7	4.5	2.0	6.5
Cottonwood	11.8	29.4	1.4	42.6	5.5	1.8	1.0	1.3	3.0	12.6	50.8	4.4	55.2
Balsam poplar	1.2	1.7	0.1	3.1	0.5	0.1	0.2	0.8	1.3	2.9	4.6	1.4	6.0
Aspen	9,082.1	4,453.0	837.3	14,372.4	359.3	14.9	645.7	217.1	5,333.7	6,570.7	14,772.2	6,170.9	20,943.1
Black cherry	62.2	7.0	9.7	79.0	0.6	–	2.4	8.2	37.0	48.1	80.4	46.7	127.1
Red oak	10,255.9	2,469.9	1,406.0	14,131.9	649.3	23.0	891.2	147.8	5,864.3	7,575.6	14,437.2	7,270.3	21,707.5
White oak	2,942.5	867.0	393.1	4,202.5	223.6	8.7	313.6	42.9	1,779.9	2,368.7	4,398.3	2,173.0	6,571.2
Black locust	0.3	0.0	0.0	0.4	0.0	–	0.0	0.0	0.2	0.2	0.4	0.2	0.6
Willow	0.6	0.9	0.1	1.6	0.3	0.0	0.1	0.4	0.7	1.5	2.4	0.7	3.1
Basswood	1,066.0	248.5	160.4	1,474.9	58.2	3.0	60.7	209.8	700.5	1,032.1	1,646.1	860.9	2,507.0
Elm	312.5	255.4	36.8	604.7	98.7	2.0	56.0	195.9	342.1	694.7	920.5	378.9	1,299.4
Total	30,934.5	12,781.8	3,813.0	47,529.4	2,376.1	151.4	2,760.4	2,271.5	19,987.4	27,546.8	51,275.8	23,800.4	75,076.2
All species	43,542.4	22,931.4	4,355.7	70,829.5	3,596.0	871.7	3,174.7	3,389.8	26,733.4	37,765.6	77,506.1	31,089.1	108,595.1

(Table 22 continued on next page)

(Table 22 continued)

NORTHEAST UNIT

Species group	Growing stock: Used for products: Sawtimber	Growing stock: Used for products: Poletimber	Growing stock: Logging residue	Growing stock: Total	Non-growing stock: Used for products: Limbwood	Non-growing stock: Used for products: Saplings	Non-growing stock: Used for products: Cull trees	Non-growing stock: Used for products: Dead trees	Non-growing stock: Logging slash	Non-growing stock: Total	Total material used for products	Total material not used	Total material harvested
Softwoods													
Balsam fir	1,664.80	1,355.30	80.3	3,100.40	118.4	67.7	20	103.5	1,257.80	1,567.50	3,329.70	1,338.10	4,667.80
Tamarack	231.3	204	10.5	445.8	17.7	10.3	3	15.8	181.2	228.1	482.1	191.7	673.9
Spruce	1,754.50	1,092.50	107.4	2,954.40	98.1	52.1	25.3	79.7	1,176.80	1,432.00	3,102.20	1,284.20	4,386.40
Jack pine	2,510.20	2,727.10	175.1	5,412.40	250	148.5	52.1	600	1,969.70	3,020.30	6,288.00	2,144.70	8,432.70
Red pine	6,866.60	2,740.40	305	9,912.00	369.4	212.8	158.3	85.6	2,869.80	3,695.90	10,433.20	3,174.70	13,607.90
White pine	3,042.00	506.5	160	3,708.50	79.4	31.3	30.9	25.1	1,214.30	1,380.90	3,715.10	1,374.30	5,089.40
Other pine	8.7	1.1	0.7	10.5	0.2	–	0	–	4.1	4.3	10	4.8	14.7
N. white-cedar	258.6	242.5	51.8	552.9	13	16.6	4.1	1	104.6	139.3	535.8	156.4	692.2
Hemlock	840.70	635.6	27.6	1,503.80	80.9	52.8	36.7	15.9	375	561.3	1,662.60	402.6	2,065.20
Total	17,177.40	9,504.90	918.30	27,600.60	1,027.10	592.10	330.50	926.70	9,153.20	12,029.60	29,558.70	10,071.50	39,630.30
Hardwoods													
Soft maple	4,654.30	3,631.50	617	8,902.80	783.5	145.1	884.6	331.9	4,107.10	6,252.20	10,430.90	4,724.10	15,155.00
Hard maple	8,966.40	3,186.80	932.2	13,085.40	1,065.70	38.3	811.9	1,957.10	6,316.00	10,189.00	16,026.20	7,248.20	23,274.30
Paper birch	2,774.80	4,472.40	559.3	7,806.50	501.9	100.2	255.8	387.1	2,988.30	4,233.30	8,492.10	3,547.60	12,039.80
Yellow birch	667.6	315.2	91.8	1,074.50	114.9	1.4	78.5	264.6	572.1	1,031.50	1,442.20	663.9	2,106.10
Hickory	26	3.2	4	33.2	0.2	–	0.8	3.8	16.2	21	34	20.2	54.2
Beech	362.1	131.3	51.2	544.7	43.5	0.5	31.5	116.6	287.9	480	685.5	339.1	1,024.60
Ash	1,430.30	690.9	193.5	2,314.80	236.2	5.9	151	550.6	1,224.20	2,168.00	3,065.00	1,417.70	4,482.70
Butternut	15.5	1.9	2.4	19.8	0.1	–	0.5	2.2	9.6	12.5	20.2	12	32.2
Black walnut	7.1	–	1.3	8.4	0	–	0.8	–	2.2	2.9	7.9	3.5	11.4
Cottonwood	13.7	11.7	1.7	27.2	2.9	0.5	1.3	4.1	9.9	18.8	34.3	11.6	45.9
Balsam poplar	88.2	81.6	10.1	179.9	29.7	1.3	16.2	54.4	94.2	195.7	271.3	104.3	375.6
Aspen	26,015.00	15,431.20	2,117.30	43,563.40	3,152.30	164.4	2,127.70	614.1	13,248.20	19,306.70	47,504.60	15,365.50	62,870.10
Black cherry	115.6	12.4	18.3	146.2	1	–	4.8	14.6	67.2	87.5	148.3	85.4	233.7
Other cherry	–	–	–	–	9.3	0.1	53.8	18.4	202.4	284	81.6	202.4	284
Red oak	4,363.60	1,118.00	591	6,072.60	593.1	17.1	432.2	58.1	2,208.80	3,309.30	6,582.10	2,799.80	9,381.90
White oak	373.4	132.1	50.2	555.6	31.4	3.5	36.8	5.9	211.5	289.1	583.1	261.6	844.7
Willow	5.6	10.8	0.4	16.8	2.8	0.5	1	3	4.9	12.2	23.7	5.4	29.1
Basswood	2,678.70	1,128.60	384.2	4,191.40	340.7	16.8	233.5	812.4	2,029.30	3,432.80	5,210.80	2,413.40	7,624.20
Elm	578.6	466.8	68	1,113.50	186.6	2.1	107.5	377.4	650.7	1,324.20	1,718.90	718.7	2,437.60
Other hardwoods	–	–	–	–	9.2	0.1	53.4	18.2	200.7	281.7	81	200.7	281.7
Total	53,136.50	30,826.30	5,693.90	89,656.60	7105.1	497.7	5283.7	5594.6	34,451.20	52,932.30	102,443.80	40,145.10	142,588.90
All species	70,313.90	40,331.20	6,612.10	117,257.30	8132.2	1089.8	5614.2	6521.2	43,604.50	64,961.90	132,002.60	50,216.60	182,219.20

(Table 22 continued on next page)

(Table 22 continued)

NORTHWEST UNIT

Species group	Growing stock: Used for products: Sawtimber	Growing stock: Used for products: Poletimber	Growing stock: Logging residue	Growing stock: Total	Non-growing stock: Used for products: Limbwood	Non-growing stock: Used for products: Saplings	Non-growing stock: Used for products: Cull trees	Non-growing stock: Used for products: Dead trees	Non-growing stock: Logging slash	Non-growing stock: Total	Total material used for products	Total material not used	Total material harvested
Softwoods													
Balsam fir	1,730.40	1,372.70	78.7	3,181.80	148.5	68.5	20.2	108.7	1,259.40	1,605.30	3,449.00	1,338.10	4,787.10
Tamarack	303.4	260.1	14.1	577.6	22.6	13.1	3.9	20.1	234.6	294.3	623.2	248.8	871.9
Spruce	1,345.60	947.8	70.2	2,363.50	96.5	46.2	16	72.5	938.8	1,170.00	2,524.60	1,009.00	3,533.50
Jack pine	5,397.80	5,736.70	370.1	11,504.60	541.3	311.2	105.5	1,259.80	4,181.40	6,399.20	13,352.30	4,551.50	17,903.80
Red pine	7,348.70	2,157.20	363.1	9,869.10	306	157.2	115.3	77.2	2,988.20	3,644.00	10,161.70	3,351.40	13,513.00
White pine	1,278.70	304.5	65.8	1,648.90	43.5	21.2	17.6	12	516.4	610.7	1,677.50	582.2	2,259.60
N. white-cedar	4.3	0.8	0.4	5.5	0.1	–	0	–	1.8	1.9	5.2	2.2	7.4
Hemlock	84.10	75.6	2.4	162.10	9.5	6.4	4.4	1.8	38.4	60.5	181.70	40.8	222.60
Total	17,492.90	10,855.50	964.80	29,313.10	1,168.10	623.80	282.80	1,551.90	10,159.20	13,785.80	31,975.00	11,123.90	43,099.00
Hardwoods													
Soft maple	3,613.90	3,664.40	449.2	7,727.50	792.8	161.4	798.4	206.7	3,314.70	5,274.00	9,237.60	3,763.90	13,001.50
Hard maple	4,949.90	3,029.40	499.8	8,479.00	1,003.50	61.5	592.1	1,703.80	4,052.90	7,413.90	11,340.30	4,552.70	15,893.00
Paper birch	2,554.20	7,183.10	569.6	10,306.90	837.5	179.5	309	423.5	3,704.60	5,454.10	11,486.70	4,274.30	15,761.00
Yellow birch	323	177.9	42.6	543.5	65.5	1	41.1	145.9	297.6	551.1	754.4	340.2	1,094.60
Hickory	23.7	2.9	3.6	30.2	0.2	–	0.7	3.4	14.7	19.1	30.9	18.3	49.3
Hackberry	10.5	1.3	1.6	13.4	0.1	–	0.3	1.5	6.5	8.5	13.8	8.2	21.9
Beech	16.6	14.5	1.9	33	5.9	0.1	3.3	11.7	19.5	40.4	52.1	21.4	73.5
Ash	1,076.10	682.8	137.7	1,896.60	241.4	8	142.3	502.9	1,003.60	1,898.20	2,653.50	1,141.40	3,794.80
Butternut	2.8	0.3	0.4	3.5	0	–	0.1	0.4	1.7	2.2	3.6	2.1	5.8
Cottonwood	12.6	46.5	0.2	59.3	9.2	3	1.7	2.2	3.7	19.8	75.2	3.9	79.1
Balsam poplar	59.1	57.3	6.6	122.9	21.4	0.7	11.6	39.8	66.9	140.5	189.9	73.5	263.4
Aspen	28,737.10	14,516.40	3,046.30	46,299.90	1,296.30	42.1	2,388.10	692.3	16,063.20	20,482.00	47,672.40	19,109.50	66,781.90
Black cherry	28.7	3	4.6	36.3	0.2	–	1.2	3.6	16.5	21.6	36.7	21.1	57.8
Other cherry	–	–	–	–	0.8	0	6.8	1.8	23.7	33.2	9.4	23.7	33.2
Red oak	4,254.80	905	598	5,757.80	226.6	16.1	280.8	62.5	2,253.50	2,839.50	5,745.90	2,851.40	8,597.30
White oak	699.5	227	93.1	1,019.60	54.8	5.3	61.3	11.4	401	533.7	1,059.30	494	1,553.30
Willow	2.6	5.4	0.2	8.2	1.4	0.3	0.5	1.3	2.1	5.5	11.4	2.3	13.8
Basswood	1,533.90	664.4	216.5	2,414.80	200	12	139.4	455.8	1,146.70	1,954.00	3,005.60	1,363.20	4,368.80
Elm	361.5	332	40.7	734.1	129.6	2.8	72	250.1	418.5	873.1	1,147.90	459.2	1,607.10
Other hardwoods	–	–	–	–	0.8	0	4.6	1.6	17.1	24	6.9	17.1	24
Total	48,260.60	31,513.60	5,712.70	85,486.80	4888.2	493.7	4855.3	4522.2	32,828.90	47,588.30	94,533.50	38,541.60	133,075.10
All species	65,753.50	42,369.00	6,677.50	114,800.00	6056.3	1117.6	5138.1	6074.1	42,988.10	61,374.20	126,508.60	49,665.60	176,174.10

(Table 22 continued on next page)

(Table 22 continued)

SOUTHEAST UNIT

Species group	Growing stock: Used for products: Sawtimber	Growing stock: Used for products: Poletimber	Growing stock: Used for products: Logging residue	Growing stock: Total	Non-growing stock: Used for products: Limbwood	Non-growing stock: Used for products: Saplings	Non-growing stock: Used for products: Cull trees	Non-growing stock: Used for products: Dead trees	Non-growing stock: Used for products: Logging slash	Non-growing stock: Total	Total material used for products	Total material not used	Total material harvested
Softwoods													
Balsam fir	0.1	0	0	0.1	0	–	0	–	0.1	0.1	0.1	0.1	0.2
Tamarack	3	1.2	0.2	4.4	0.1	0	0	0.1	1.7	2	4.4	1.9	6.4
Spruce	66.5	55.2	3.2	124.9	4.8	2.8	0.8	4.2	50.7	63.3	134.4	53.9	188.3
Jack pine	11.1	21.6	0.7	33.5	1.9	1.2	0.4	5	11.9	20.5	41.4	12.6	53.9
Red pine	644.7	353.7	25.5	1,023.90	46	28.5	20	9.8	276.6	380.8	1,102.60	302.1	1,404.70
White pine	218.6	101.8	9	329.5	13.5	8.1	5.7	3	92.6	122.9	350.7	101.7	452.4
N. white-cedar	81.1	33.5	9.9	124.5	2.3	1.9	0.5	–	35.7	40.4	119.2	45.6	164.8
Hemlock	28.30	2.5	1.5	32.30	0.5	0.1	0.1	0.2	11.2	12.1	31.70	12.7	44.40
Total	1,053.50	569.60	50.00	1,673.10	69.20	42.50	27.50	22.30	480.50	642.00	1,784.60	530.50	2,315.10
Hardwoods													
Soft maple	651.2	125.1	98.7	875	17.3	2.1	32.1	88.6	424.1	564.2	916.4	522.8	1,439.30
Hard maple	746.2	103.7	71.2	921	25.4	0.2	36.5	50.2	433.6	546	962.2	504.8	1,467.00
Paper birch	95.8	79.8	17.2	192.8	8.5	1.5	6	13.3	81.1	110.5	205	98.3	303.3
Yellow birch	29.9	5.3	4.5	39.8	1	0	1.3	5.6	19.8	27.7	43.2	24.3	67.5
Hickory	51.7	6.3	8	66	0.5	–	1.6	7.5	32.1	41.7	67.6	40.1	107.6
Hackberry	3.6	0.4	0.5	4.5	0	–	0.1	0.5	2.2	2.9	4.6	2.8	7.4
Beech	106.8	13.1	16.4	136.2	1	–	3.4	15.4	66.3	86.1	139.6	82.7	222.3
Ash	377.2	54.6	57.6	489.4	7.5	0	13.8	60.7	240.5	322.6	513.8	298.1	811.9
Butternut	6.8	0.8	1	8.6	0.1	–	0.2	1	4.2	5.5	8.9	5.2	14.1
Black walnut	17.1	2.1	2.6	21.9	0.2	–	0.5	2.5	10.7	13.8	22.4	13.3	35.7
Cottonwood	49	6.1	7.5	62.6	0.5	0	1.6	7.2	30.5	39.8	64.3	38	102.3
Balsam poplar	11.6	1.7	1.8	15.1	0.2	0	0.4	1.9	7.4	10	15.9	9.2	25.1
Aspen	404.2	117	48.3	569.5	5.5	0	12.9	5.4	220.7	244.4	544.9	269	813.9
Black cherry	145.9	18.2	22.4	186.5	2.2	0	5	20.8	89.9	117.9	192.1	112.3	304.5
Red oak	1,188.80	135.9	167	1,491.70	38.2	0.4	29.6	19.1	610.1	697.4	1,411.90	777.2	2,189.10
White oak	718.7	71.6	101.5	891.8	20.9	0.1	13.4	11.6	362.7	408.7	836.3	464.2	1,300.50
Willow	6.9	1	1.1	9	0.1	0	0.2	1.1	4.4	5.9	9.4	5.5	14.8
Basswood	258.5	42.6	39.2	340.3	7.5	0.1	10.6	45.5	168.7	232.3	364.7	207.8	572.6
Elm	70.5	9.5	10.8	90.8	1.1	0	2.4	10.8	44.4	58.8	94.4	55.2	149.6
Other hardwoods	1.3	0.2	0.2	1.7	0	–	0	0.2	0.8	1.1	1.7	1	2.8
Total	4,941.60	795.00	677.60	6,414.20	137.8	4.5	171.7	368.7	2,854.40	3,537.10	6,419.30	3,532.00	9,951.30
All species	5,995.10	1,364.60	727.70	8,087.30	206.9	47.1	199.3	391	3,334.80	4,179.10	8,203.90	4,062.50	12,266.40

(Table 22 continued on next page)

(Table 22 continued)

SOUTHWEST UNIT

Species group	Growing stock: Used for Products: Sawtimber	Growing stock: Used for Products: Poletimber	Growing stock: Logging residue	Growing stock: Total	Non-growing stock: Used for products: Limbwood	Saplings	Cull trees	Dead trees	Logging slash	Total	Total material used for products	Total material not used	Total material harvested
Softwoods													
Balsam fir	159.2	141.8	7.2	308.2	12.3	7.2	2.1	11	125.3	157.9	333.6	132.5	466.1
Redcedar	6.4	1.4	0.6	8.4	0.1	0	0	–	3	3.2	8	3.5	11.6
Spruce	89.9	70	4.5	164.4	6.1	3.5	1	5.3	66.6	82.6	175.8	71.1	246.9
Jack pine	142.9	267.2	9.1	419.2	23.8	15.3	5.1	62	148.8	255.1	516.4	157.9	674.3
Red pine	1,843.10	1,163.30	85.4	3,091.70	142.7	94.1	62.7	28.9	789.7	1,118.00	3,334.70	875.1	4,209.80
White pine	523.20	276.7	21.9	821.80	35.8	22.1	15.4	7.6	223.1	304.1	880.90	245	1,125.90
Total	2,764.60	1,920.50	128.60	4,813.70	220.90	142.30	86.40	114.80	1,356.50	1,920.80	5,249.50	1,485.10	6,734.50
Hardwoods													
Soft maple	664.2	219.9	98.2	982.3	40.1	6.4	56.4	79	470.4	652.3	1,066.00	568.6	1,634.70
Hard maple	1,687.80	245.2	168.9	2,101.90	65.9	0.6	92.5	125.9	974	1,258.90	2,217.80	1,143.00	3,360.80
Paper birch	67.3	175.8	17.3	260.3	20.8	3.6	7.9	10.5	94.7	137.5	285.9	112	397.8
Yellow birch	10.9	9.5	1.2	21.6	3.8	0	2.2	7.6	12.8	26.4	34.1	14	48.1
Hickory	270.8	32.1	41.9	344.8	2.5	–	9.2	37.8	165.5	215	352.4	207.4	559.8
Hackberry	22.4	2.7	3.4	28.5	0.2	–	0.7	3.2	13.9	18	29.2	17.3	46.6
Beech	1.5	1.3	0.2	2.9	0.5	0	0.3	1.1	1.7	3.6	4.7	1.9	6.6
Ash	308.8	66.3	46	421.1	16.4	0.2	16.3	65.3	212.3	310.5	473.3	258.3	731.5
Honeylocust	0.6	0.8	–	1.3	1.1	0	0.4	–	0.1	1.5	2.8	0.1	2.9
Butternut	5.1	0.6	0.8	6.5	0	–	0.2	0.7	3.1	4.1	6.6	3.9	10.5
Black walnut	130.5	15.8	20.1	166.4	1.2	–	4.2	18.6	80.6	104.7	170.3	100.7	271.1
Cottonwood	104.3	13.4	17.2	134.9	1	0	3.6	13.9	60.8	79.3	136.2	78	214.2
Balsam poplar	0.5	0.4	0.1	0.9	0.2	0	0.1	0.3	0.6	1.2	1.5	0.6	2.1
Aspen	1,682.20	508.4	199.6	2,390.20	23.5	0	57.7	23.6	924.3	1,029.10	2,295.40	1,123.90	3,419.30
Black cherry	198.9	22.6	31.2	252.7	3	0	8.3	25.6	116.6	153.5	258.4	147.7	406.2
Red oak	7,305.30	714.2	1,043.30	9,062.70	201.2	1.3	162.7	113.5	3,646.50	4,125.20	8,498.20	4,689.80	13,187.90
White oak	2,624.50	278.2	371.5	3,274.10	79.4	0.6	55.8	42	1,329.50	1,507.20	3,080.40	1,700.90	4,781.40
Black locust	0.1	0	0	0.2	0	–	0	0	0.1	0.1	0.2	0.1	0.3
Willow	9.6	1.3	1.5	12.4	0.2	0	0.3	1.5	6.1	8.1	12.9	7.5	20.5
Basswood	664.8	92.3	104.4	861.5	13.9	0.1	29.7	99.2	403.1	546.1	900	507.5	1,407.50
Elm	231.1	64.4	33.6	329.2	18.7	0.2	15.4	60.2	170.2	264.7	390.1	203.8	593.9
Other hardwoods	43.3	5.3	6.7	55.3	0.4	–	1.4	6.3	26.9	35	56.7	33.6	90.3
Total	16,034.30	2,470.40	2,207.00	20,711.80	494.1	13.1	525.2	735.9	8,713.80	10,482.10	20,273.00	10,920.80	31,193.80
All species	18,799.00	4,390.90	2,335.60	25,525.50	715	155.4	611.6	850.7	10,070.20	12,402.90	25,522.50	12,405.90	37,928.40

0=Less than 50 cubic feet.

Rows and columns may not sum due to rounding.

Table 23.--Growing-stock removals from timberland for industrial roundwood by Forest Survey Unit, county, and species group, Wisconsin, 1999

(In thousand cubic feet)

Unit and county	Balsam fir	Red-cedar	Tama-rack	Spruce	Jack pine	Red pine	White pine	Other pine	N. white-cedar	Hemlock	Total softwoods	Soft maple	Hard maple	Paper birch	Yellow birch	Hickory	Hack-berry	Beech	Ash	Honey-locust	Butter-nut
Central																					
Adams	24	–	4	4	1,648	1,740	351	–	–	–	3,772	71	54	29	1	0	–	–	25	–	1
Chippewa	1	–	2	17	50	605	81	–	–	–	756	392	348	301	17	9	–	0	76	–	0
Clark	4	–	17	25	359	568	479	–	–	6	1,458	732	547	588	32	3	–	1	155	–	1
Eau Claire	–	–	–	2	407	740	101	–	–	–	1,250	217	125	143	8	1	0	0	37	–	0
Jackson	2	–	7	26	1,227	1,432	872	–	–	–	3,566	343	232	256	18	17	–	–	80	–	3
Juneau	2	–	2	19	1,199	958	344	–	–	–	2,524	187	120	46	4	14	–	–	63	–	2
Marathon	28	–	2	147	59	500	148	–	0	99	984	1,659	1,589	423	162	5	–	13	401	–	0
Marquette	–	–	1	–	103	739	88	–	–	–	931	19	8	6	1	1	–	–	6	–	0
Monroe	–	–	9	10	498	763	440	–	–	–	1,720	245	273	75	2	28	–	–	45	–	1
Portage	11	–	5	54	383	1,229	274	–	–	10	1,966	357	151	75	9	4	–	–	55	–	4
Waupaca	3	–	–	8	11	906	185	–	9	4	1,126	364	258	67	25	3	–	10	105	–	3
Waushara	–	–	–	8	106	1,809	170	–	–	–	2,093	39	72	31	1	3	–	–	13	–	–
Wood	3	–	–	29	236	643	244	–	–	–	1,154	261	276	78	10	5	–	0	70	–	2
Total	79	–	50	351	6,287	12,631	3,776	–	9	119	23,300	4,885	4,053	2,119	289	93	0	23	1,133	–	17
Northeast																					
Florence	73	–	2	37	104	205	49	–	1	344	814	642	851	417	87	–	–	53	63	–	–
Forest	486	–	31	607	190	742	157	–	20	214	2,448	987	2,101	1,060	190	0	–	40	331	–	1
Langlade	557	–	33	173	148	468	61	0	1	31	1,472	1,862	3,068	1,380	215	14	–	55	588	–	0
Lincoln	398	–	56	223	188	467	84	–	1	66	1,482	1,106	1,219	951	104	4	–	11	304	–	1
Marinette	266	–	28	135	1,372	1,682	256	–	177	79	3,993	848	1,036	681	146	8	–	57	237	–	–
Menominee	263	–	41	183	408	439	1,306	–	129	564	3,333	817	1,206	265	108	1	–	75	129	–	10
Oconto	118	–	9	210	123	678	128	–	102	13	1,380	1,051	639	322	35	0	–	218	113	–	–
Oneida	657	–	189	1,101	825	2,821	742	–	2	48	6,386	652	976	1,337	61	–	–	1	188	–	–
Shawano	46	–	1	12	19	678	175	–	116	124	1,171	471	1,283	206	82	5	–	27	268	–	8
Vilas	236	–	56	273	2,036	1,732	752	10	4	22	5,121	467	705	1,188	47	–	–	7	94	–	–
Total	3,100	–	446	2,954	5,412	9,912	3,708	10	553	1,504	27,601	8,903	13,085	7,806	1,075	33	–	545	2,315	–	20
Northwest																					
Ashland	248	–	81	511	81	617	145	–	2	8	1,694	553	880	868	71	2	–	2	175	–	–
Barron	1	–	1	24	159	318	175	–	–	–	678	239	266	120	3	7	0	–	48	–	0
Bayfield	302	–	2	60	2,161	1,860	456	–	0	6	4,847	956	1,056	1,797	52	2	–	–	212	–	1
Burnett	51	–	–	6	2,220	873	87	–	–	–	3,237	122	101	186	2	–	–	–	13	–	–
Douglas	1,245	–	153	342	2,826	2,014	136	–	0	–	6,716	648	238	1,604	5	–	–	–	48	–	–
Iron	264	–	15	232	961	588	69	–	–	39	2,168	939	1,309	763	106	–	–	23	206	–	–
Polk	1	–	27	9	768	77	19	–	–	–	902	97	103	99	1	1	–	–	30	–	–
Price	477	–	164	272	215	564	74	–	2	74	1,843	949	1,228	1,522	85	3	–	1	270	–	0
Rusk	22	–	59	297	13	260	57	–	–	1	708	666	721	583	35	15	10	0	194	–	0
Sawyer	329	–	20	460	341	1,232	270	–	–	6	2,657	1,429	1,575	1,804	112	0	–	1	434	–	1
Taylor	202	–	54	125	3	187	33	–	–	27	629	681	579	608	63	2	–	5	168	–	0
Washburn	39	–	2	25	1,758	1,279	130	–	0	–	3,233	450	424	352	9	–	3	1	98	–	1
Total	3,182	–	578	2,364	11,505	9,869	1,649	–	6	162	29,313	7,728	8,479	10,307	543	30	13	33	1,897	–	4

Southeast																					
Brown	–	–	–	–	3	97	7	–	2	2	111	42	25	3	0	10	–	6	19	–	1
Calumet	–	–	–	1	–	16	4	–	0	–	20	40	25	–	–	1	–	5	12	–	–
Columbia	–	–	–	14	12	220	47	–	–	–	293	42	9	9	1	7	1	–	16	–	1
Dane	–	–	–	0	–	10	5	–	0	–	15	2	18	–	–	14	1	–	5	–	–
Dodge	–	–	–	–	–	0	2	–	1	–	4	19	17	0	0	1	0	–	28	–	–
Door	–	–	2	–	7	18	23	–	22	3	75	56	86	38	12	0	–	27	50	–	–
Fond Du Lac	–	–	–	0	–	13	1	–	0	–	14	65	78	20	–	2	0	6	15	–	0
Green	–	–	–	–	–	2	6	–	–	–	8	6	15	–	–	2	–	–	13	–	–
Green Lake	0	–	–	2	–	74	24	–	0	–	101	11	18	0	0	0	–	–	5	–	2
Jefferson	–	–	–	4	2	21	11	–	–	–	38	14	2	–	–	0	0	–	36	–	0
Kenosha	–	–	–	–	–	4	11	–	–	–	14	0	–	–	–	–	–	–	0	–	–
Kewaunee	–	–	2	2	–	43	12	–	29	16	104	157	91	32	5	0	–	44	62	–	–
Manitowoc	–	–	–	9	0	33	38	–	15	9	103	113	260	12	18	5	0	19	57	–	–
Milwaukee	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Outagamie	–	–	–	17	–	22	11	–	43	2	96	147	43	43	1	2	–	10	35	–	–
Ozaukee	–	–	–	32	–	11	11	–	0	–	54	13	3	1	0	2	–	–	17	–	–
Racine	–	–	–	1	2	32	20	–	–	–	55	1	2	1	0	0	–	–	2	–	–
Rock	–	–	–	0	–	0	0	–	0	–	1	2	3	–	–	13	0	–	5	–	1
Sheboygan	–	–	–	16	–	150	14	–	11	–	191	48	100	3	2	3	–	16	53	–	2
Walworth	–	–	–	1	4	58	23	–	–	–	85	–	10	–	–	–	–	–	0	–	0
Washington	–	–	–	1	–	32	15	–	0	–	49	54	64	10	0	1	1	2	33	–	0
Waukesha	–	–	–	5	4	147	42	–	0	–	199	22	21	1	0	2	0	2	15	–	–
Winnebago	–	–	–	20	–	20	2	–	–	–	42	21	30	19	0	–	–	–	11	–	–
Total	0	–	4	125	33	1,024	329	–	124	32	1,673	875	921	193	40	66	5	136	489	–	9
Southwest																					
Buffalo	–	–	–	20	1	36	10	–	–	–	68	82	25	20	1	52	2	–	11	–	0
Crawford	–	–	–	–	–	4	2	–	–	–	6	88	198	1	0	45	7	–	51	–	–
Dunn	–	–	–	20	72	768	135	–	–	–	993	144	197	41	3	5	1	0	45	–	0
Grant	–	–	–	–	10	273	14	–	–	–	298	44	111	1	0	30	3	–	40	–	0
Iowa	–	–	–	–	1	51	60	–	–	–	112	24	47	1	–	13	4	–	21	–	0
La Crosse	–	–	–	29	6	134	31	–	–	–	199	46	122	20	–	44	5	–	8	–	3
Lafayette	–	–	–	–	–	–	0	–	–	–	0	1	0	0	–	1	–	–	2	–	–
Pepin	–	–	–	–	1	86	50	–	–	–	137	40	80	21	0	5	2	–	16	–	0
Pierce	–	1	–	–	–	13	6	–	–	–	20	115	404	7	15	8	0	3	45	–	0
Richland	–	–	–	–	2	165	47	–	–	–	214	101	329	23	–	54	3	–	61	–	0
Sauk	–	2	–	11	178	560	129	–	–	–	879	165	133	30	2	32	1	–	58	1	0
St Croix	4	5	–	61	128	429	116	–	–	–	743	18	76	15	1	1	–	–	6	–	–
Trempealeau	–	–	–	17	20	460	135	–	–	–	633	61	58	60	1	15	0	–	14	–	1
Vernon	304	–	–	6	1	113	86	–	–	–	511	55	321	20	–	39	0	–	43	–	1
Total	308	8	–	164	419	3,092	822	–	–	–	4,814	982	2,102	260	22	345	29	3	421	1	6
All units	6,669	8	1,077	5,958	23,656	36,528	10,284	10	692	1,817	86,701	23,372	28,640	20,686	1,968	567	47	740	6,255	1	55

(Table 23 continued on next page)

(Table 23 continued)

Unit and county	Black walnut	Cotton-wood	Balsam poplar	Aspen	Black cherry	Red oak group	White oak group	Black locust	Willow	Bass-wood	Elm	Other/ unknown hardwoods	Total hardwoods	All species
Central														
Adams	–	–	–	684	0	1,145	377	–	–	76	1	–	2,464	6,236
Chippewa	–	30	0	1,711	7	1,395	221	–	0	175	39	–	4,722	5,477
Clark	–	5	1	3,297	7	1,316	360	–	0	130	46	–	7,220	8,678
Eau Claire	–	0	0	654	9	1,159	292	–	0	21	9	–	2,675	3,925
Jackson	–	5	0	1,096	10	2,525	928	–	0	74	21	–	5,610	9,176
Juneau	–	–	–	442	8	1,218	502	0	–	37	11	–	2,655	5,179
Marathon	2	1	1	3,259	11	837	78	–	1	669	400	–	9,511	10,494
Marquette	–	–	–	93	1	178	97	–	–	1	5	–	415	1,345
Monroe	–	–	0	301	19	2,310	648	–	–	33	24	–	4,002	5,722
Portage	–	0	0	635	3	517	110	–	0	67	6	–	1,993	3,959
Waupaca	2	3	0	573	2	452	189	–	0	106	34	–	2,197	3,323
Waushara	–	–	–	79	–	381	173	–	–	16	0	–	810	2,903
Wood	–	0	0	1,546	4	697	228	–	0	71	9	–	3,257	4,411
Total	5	43	3	14,372	79	14,132	4,203	0	2	1,475	605	–	47,529	70,829
Northeast														
Florence	–	0	18	2,359	13	160	7	–	0	282	13	0	4,967	5,781
Forest	–	1	13	2,886	33	293	21	–	1	520	130	0	8,605	11,053
Langlade	2	1	5	3,967	20	675	45	–	1	966	333	0	13,200	14,672
Lincoln	–	5	10	4,292	1	388	69	–	5	412	377	–	9,260	10,742
Marinette	1	0	44	5,164	24	986	38	–	0	506	55	0	9,830	13,823
Menominee	–	4	16	3,310	15	1,077	47	–	0	268	46	0	7,394	10,726
Oconto	–	6	16	3,524	0	605	168	–	0	139	80	0	6,916	8,296
Oneida	–	7	13	3,926	10	464	67	–	7	374	44	0	8,126	14,513
Shawano	5	1	0	1,547	25	933	58	–	0	314	13	–	5,247	6,418
Vilas	–	3	43	12,587	5	493	37	–	3	410	23	0	16,112	21,233
Total	8	27	180	43,563	146	6,073	556	–	17	4,191	1,113	0	86,657	117,257
Northwest														
Ashland	–	0	0	2,963	5	558	162	–	0	383	99	–	6,721	8,415
Barron	–	0	–	2,005	1	588	199	–	–	93	6	–	3,575	4,253
Bayfield	–	1	32	6,731	5	829	57	–	1	247	27	–	12,006	16,853
Burnett	–	–	0	1,756	–	141	28	–	–	11	1	–	2,360	5,597
Douglas	–	–	70	6,006	–	133	6	–	–	36	4	–	8,798	15,514
Iron	–	3	10	5,017	8	270	59	–	3	276	165	0	9,156	11,324
Polk	–	–	4	1,604	2	414	84	–	–	42	2	–	2,483	3,385
Price	–	2	5	4,062	3	377	68	–	2	307	87	–	8,973	10,816
Rusk	–	26	2	3,689	2	749	90	–	1	249	49	–	7,082	7,790
Sawyer	–	0	0	5,963	6	816	93	–	0	452	101	–	12,786	15,443
Taylor	–	26	1	2,241	5	255	31	–	0	188	184	–	5,037	5,665
Washburn	–	0	0	4,264	0	628	142	–	0	131	9	–	6,511	9,744
Total	–	59	123	46,300	36	5,758	1,020	–	8	2,415	734	0	85,487	114,800

Southeast														
Brown	–	21	6	41	6	62	32	–	–	10	4	–	288	399
Calumet	–	1	–	1	–	17	23	–	–	12	1	–	137	157
Columbia	–	1	–	50	63	329	203	–	–	8	8	–	746	1,040
Dane	4	1	–	4	22	177	182	–	–	15	11	1	456	471
Dodge	0	–	–	1	5	84	33	–	1	29	6	–	225	229
Door	–	10	2	22	0	44	–	–	–	13	1	–	359	434
Fond Du Lac	2	0	0	66	16	75	56	–	0	24	6	–	428	443
Green	3	–	–	3	6	51	62	–	–	7	12	–	181	189
Green Lake	–	0	–	5	3	48	26	–	–	4	5	0	128	229
Jefferson	4	–	–	169	5	22	28	–	2	15	6	–	304	342
Kenosha	–	–	–	–	3	5	10	–	–	1	–	–	19	34
Kewaunee	–	10	5	21	1	18	3	–	1	21	2	–	474	578
Manitowoc	–	8	2	17	6	116	12	–	–	67	3	–	714	817
Milwaukee	0	–	–	–	–	1	–	–	–	–	–	–	1	1
Outagamie	–	10	0	124	2	35	25	–	2	24	2	–	505	600
Ozaukee	–	–	–	0	–	42	12	–	–	5	–	–	96	150
Racine	–	–	–	–	1	16	13	–	2	0	5	–	43	98
Rock	8	0	–	0	42	72	95	–	–	2	9	–	254	255
Sheboygan	–	–	–	12	4	87	29	–	–	30	3	–	392	583
Walworth	–	0	–	–	0	1	–	–	–	2	0	–	14	99
Washington	–	0	–	4	1	108	30	–	1	29	8	–	346	395
Waukesha	1	–	–	4	–	59	14	–	1	5	0	–	146	346
Winnebago	–	0	0	27	–	25	6	–	0	18	–	–	157	200
Total	22	63	15	570	187	1,492	892	–	9	340	91	2	6,414	8,087
Southwest														
Buffalo	2	30	–	474	47	1,235	485	–	0	112	15	–	2,593	2,661
Crawford	76	5	–	23	29	925	343	–	–	94	32	16	1,933	1,939
Dunn	–	–	–	388	14	709	143	–	–	54	6	–	1,750	2,744
Grant	21	46	–	45	8	676	250	–	9	89	32	2	1,406	1,704
Iowa	43	2	–	31	16	542	314	–	–	27	17	4	1,105	1,217
La Crosse	2	1	–	52	34	732	252	0	–	32	27	–	1,381	1,581
Lafayette	1	–	–	–	1	20	25	–	–	3	–	–	54	54
Pepin	1	8	0	188	4	393	140	–	0	44	4	–	948	1,085
Pierce	–	8	–	125	3	443	99	–	–	87	91	–	1,452	1,472
Richland	14	1	0	108	15	645	256	–	0	98	27	30	1,766	1,980
Sauk	2	–	0	310	32	998	389	–	–	94	35	2	2,285	3,165
St Croix	–	2	–	258	–	151	51	–	–	32	4	–	614	1,357
Trempealeau	0	27	–	291	31	904	266	–	2	24	20	–	1,773	2,406
Vernon	6	5	0	97	18	690	260	–	1	72	20	2	1,651	2,162
Total	166	135	1	2,390	253	9,063	3,274	0	12	861	329	55	20,712	25,525
All units	202	327	322	107,195	701	36,517	9,944	1	48	9,283	2,872	57	249,799	336,499

0=Less than 50 cubic feet.

Rows and columns may not sum due to rounding.

Table 24.--Sawtimber removals from timberland for industrial roundwood by Forest Survey Unit, county, and species group, Wisconsin, 1999

(In thousand board feet) [1]

Unit and county	Balsam fir	Red-cedar	Tama-rack	Spruce	Jack pine	Red pine	White pine	Other pine	N. white-cedar	Hemlock	Total softwoods	Soft maple	Hard maple	Paper birch	Yellow birch	Hickory
Central																
Adams	39	–	6	8	2,076	3,667	1,129	–	–	–	6,926	163	94	18	2	1
Chippewa	1	–	3	26	62	2,515	334	–	–	–	2,942	1,481	1,185	372	38	42
Clark	10	–	27	57	566	1,534	2,193	–	–	11	4,399	2,227	1,269	417	71	17
Eau Claire	–	–	–	3	533	2,376	375	–	–	–	3,287	701	250	138	14	5
Jackson	8	–	11	65	1,540	3,823	3,172	–	–	–	8,620	1,119	522	193	36	83
Juneau	7	–	4	52	1,483	2,513	1,289	–	–	–	5,348	722	450	57	13	65
Marathon	45	–	3	233	91	1,287	632	–	1	213	2,505	5,860	6,204	417	500	22
Marquette	–	–	2	–	136	1,728	202	–	–	–	2,068	72	20	7	1	3
Monroe	–	–	15	16	703	3,019	1,734	–	–	–	5,486	915	1,144	132	7	134
Portage	22	–	8	106	475	2,671	1,009	–	–	18	4,310	1,518	575	105	30	21
Waupaca	7	–	–	25	16	2,537	812	–	37	21	3,455	1,507	1,099	145	93	16
Waushara	–	–	–	13	132	5,248	447	–	–	–	5,841	86	174	36	3	16
Wood	8	–	–	64	351	1,472	884	–	–	–	2,779	907	1,110	71	36	24
Total	147	–	78	669	8,165	34,392	14,212	–	38	264	57,966	17,278	14,096	2,108	844	448
Northeast																
Florence	143	–	3	136	303	837	258	–	1	659	2,341	1,423	2,927	894	245	–
Forest	832	–	57	1,459	650	2,979	792	–	78	859	7,706	2,463	8,764	1,927	646	2
Langlade	967	–	52	314	494	2,151	228	2	2	60	4,271	4,922	12,040	2,102	556	69
Lincoln	725	–	88	481	304	1,702	312	–	2	126	3,741	2,684	2,948	1,211	214	20
Marinette	425	–	44	322	2,058	5,540	1,117	–	287	154	9,948	2,550	4,037	2,029	543	38
Menominee	418	–	65	428	502	962	6,744	–	210	1,379	10,708	2,433	4,800	430	338	5
Oconto	215	–	14	780	239	2,338	638	–	247	25	4,497	4,196	2,546	841	64	2
Oneida	1,128	–	299	1,934	1,667	10,134	3,330	–	11	104	18,607	1,352	2,182	2,649	170	–
Shawano	77	–	3	39	35	2,357	941	–	421	289	4,162	1,684	6,298	385	336	25
Vilas	477	–	88	766	4,684	7,099	3,343	41	19	42	16,559	1,001	2,002	2,586	130	–
Total	5,409	–	712	6,660	10,938	36,099	17,702	43	1,280	3,697	82,541	24,708	48,543	15,055	3,242	160
Northwest																
Ashland	594	–	129	1,271	108	2,634	690	–	10	20	5,456	1,479	3,182	1,222	220	8
Barron	2	–	3	42	591	1,224	913	–	–	–	2,774	886	1,181	186	9	32
Bayfield	580	–	2	149	3,442	8,276	1,923	–	1	28	14,402	2,046	2,778	2,156	170	8
Burnett	143	–	–	10	5,249	2,582	407	–	–	–	8,392	187	146	121	4	–
Douglas	2,034	–	241	619	3,795	8,329	473	–	1	–	15,492	940	333	1,677	10	–
Iron	438	–	24	588	3,930	2,676	285	–	–	78	8,018	1,888	3,329	862	301	–
Polk	2	–	43	15	1,891	258	56	–	–	–	2,266	286	379	80	2	3
Price	876	–	291	478	659	2,502	292	–	8	146	5,250	2,250	3,103	1,665	220	13
Rusk	35	–	93	471	16	1,111	234	–	–	2	1,963	2,033	2,304	726	95	72
Sawyer	523	–	32	731	730	5,713	1,108	–	–	14	8,850	3,529	4,599	2,533	295	1
Taylor	323	–	92	307	3	916	167	–	–	53	1,861	2,006	1,463	555	135	9
Washburn	63	–	3	43	3,078	4,395	690	–	2	–	8,274	952	1,068	367	20	–
Total	5,611	–	953	4,722	23,492	40,617	7,239	–	22	341	82,997	18,482	23,863	12,150	1,481	145

Southeast																
Brown	–	–	–	–	3	445	36	–	9	11	505	200	135	11	1	46
Calumet	–	–	–	3	–	86	21	–	1	–	110	191	138	–	–	5
Columbia	–	–	–	22	15	452	134	–	–	–	623	183	24	4	1	32
Dane	–	–	–	1	–	34	12	–	1	–	49	8	99	–	–	67
Dodge	–	–	–	–	–	2	11	–	3	–	16	90	90	0	0	7
Door	–	–	3	–	10	73	124	–	91	14	315	238	436	172	54	1
Fond Du Lac	–	–	–	1	–	43	2	–	0	–	46	264	312	10	–	8
Green	–	–	–	–	–	4	14	–	–	–	18	30	83	–	–	10
Green Lake	1	–	–	4	–	167	67	–	1	–	240	52	95	2	1	2
Jefferson	–	–	–	6	2	44	22	–	–	–	74	69	10	–	–	1
Kenosha	–	–	–	–	–	7	20	–	–	–	27	1	–	–	–	–
Kewaunee	–	–	10	3	–	178	68	–	119	86	464	746	486	146	23	2
Manitowoc	–	–	–	24	0	140	188	–	61	47	461	531	1,392	48	86	23
Milwaukee	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Outagamie	–	–	–	27	–	46	63	–	70	10	216	624	92	93	3	10
Ozaukee	–	–	–	50	–	58	21	–	1	–	131	63	13	6	0	9
Racine	–	–	–	2	2	61	38	–	–	–	103	5	10	0	0	1
Rock	–	–	–	1	–	1	1	–	1	–	5	11	16	–	–	64
Sheboygan	–	–	–	25	–	827	76	–	43	–	971	232	542	14	7	16
Walworth	–	–	–	2	5	110	43	–	–	–	159	–	52	–	–	–
Washington	–	–	–	2	–	62	33	–	0	–	97	252	338	40	0	4
Waukesha	–	–	–	8	5	280	115	–	2	–	411	96	102	1	0	9
Winnebago	–	–	–	32	–	39	3	–	–	–	74	49	55	9	0	–
Total	1	–	13	214	42	3,159	1,114	–	404	170	5,116	3,937	4,520	556	178	317
Southwest																
Buffalo	–	–	–	32	1	107	20	–	–	–	160	361	85	29	1	252
Crawford	–	–	–	–	–	7	6	–	–	–	14	423	1,069	4	1	216
Dunn	–	–	–	71	117	3,031	464	–	–	–	3,683	617	961	57	5	23
Grant	–	–	–	–	13	520	38	–	–	–	571	209	599	1	0	144
Iowa	–	–	–	–	1	98	180	–	–	–	279	112	249	1	–	63
La Crosse	–	–	–	45	8	283	70	–	–	–	406	189	607	44	–	221
Lafayette	–	–	–	–	–	–	2	–	–	–	2	3	0	0	–	3
Pepin	–	–	–	–	1	241	268	–	–	–	511	139	321	11	0	26
Pierce	–	5	–	–	–	28	11	–	–	–	44	258	1,886	13	24	39
Richland	–	–	–	–	2	317	101	–	–	–	420	420	1,655	17	–	258
Sauk	–	9	–	17	218	1,550	264	–	–	–	2,060	692	590	21	3	153
St Croix	6	18	–	97	164	1,220	521	–	–	–	2,026	38	362	24	1	5
Trempealeau	–	–	–	28	24	1,110	331	–	–	–	1,492	222	185	110	1	74
Vernon	480	–	–	10	1	336	321	–	–	–	1,149	215	1,629	11	–	190
Total	487	32	–	300	550	8,850	2,598	–	–	–	12,816	3,899	10,198	342	37	1,666
All units	11,654	32	1,757	12,564	43,187	123,117	42,865	43	1,745	4,472	241,436	68,304	101,221	30,210	5,782	2,736

(Table 24 continued on next page)

(Table 24 continued)

Unit and county	Hack-berry	Beech	Ash	Honey-locust	Butter-nut	Black walnut	Cotton-wood	Balsam poplar	Aspen	Black cherry	Red oak	White oak	Black locust	Willow	Bass-wood	Elm	Other hardwoods	Total hardwoods	All species
Central																			
Adams	–	–	78	–	5	–	–	–	2,169	2	3,669	1,037	–	–	421	2	–	7,660	14,585
Chippewa	–	0	242	–	2	–	26	1	4,819	35	6,735	1,043	–	0	637	68	–	16,727	19,669
Clark	–	1	381	–	3	–	4	1	8,469	31	5,233	1,504	–	0	449	80	–	20,156	24,555
Eau Claire	1	0	85	–	2	–	0	0	1,767	41	4,854	1,300	–	0	54	17	–	9,228	12,515
Jackson	–	–	224	–	12	–	22	0	3,213	48	9,317	2,999	–	0	244	53	–	18,084	26,704
Juneau	–	–	260	–	11	–	–	–	1,238	40	4,727	1,878	2	–	169	44	–	9,674	15,022
Marathon	–	20	1,262	–	2	14	1	2	8,979	54	3,764	317	–	1	2,949	650	–	31,018	33,524
Marquette	–	–	21	–	1	–	–	–	408	4	788	467	–	–	4	22	–	1,818	3,885
Monroe	–	–	152	–	3	–	–	0	943	89	10,156	2,578	–	–	146	109	–	16,509	21,995
Portage	–	–	211	–	18	–	0	0	2,040	15	2,236	455	–	0	277	17	–	7,518	11,828
Waupaca	–	43	431	–	15	14	13	0	2,190	9	2,194	932	–	0	495	62	–	9,258	12,713
Waushara	–	–	38	–	–	–	–	–	250	–	1,554	746	–	–	71	0	–	2,977	8,817
Wood	–	0	252	–	9	–	0	0	4,006	17	3,054	892	–	0	317	31	–	10,726	13,505
Total	1	65	3,637	–	81	27	67	4	40,491	385	58,282	16,148	2	2	6,233	1,155	–	161,353	219,319
Northeast																			
Florence	–	86	144	–	–	–	0	29	7,407	63	638	25	–	0	1,172	21	–	15,075	17,417
Forest	–	72	1,098	–	5	–	1	35	8,825	157	1,130	57	–	1	1,863	223	–	27,269	34,975
Langlade	–	99	1,856	–	2	14	2	8	11,865	96	2,887	139	–	2	3,815	542	–	41,016	45,286
Lincoln	–	19	662	–	3	–	7	13	11,103	4	1,310	184	–	7	881	615	–	21,884	25,625
Marinette	–	153	918	–	–	7	0	105	16,238	126	4,704	168	–	0	2,053	202	–	33,871	43,819
Menominee	–	327	310	–	47	–	18	26	7,570	74	3,601	209	–	0	1,234	79	–	21,499	32,207
Oconto	–	998	384	–	–	–	27	26	13,061	1	2,911	832	–	0	340	246	–	26,475	30,972
Oneida	–	1	373	–	–	–	7	14	10,124	49	1,569	128	–	7	666	73	–	19,364	37,970
Shawano	–	133	1,125	–	38	27	5	1	4,382	125	4,631	268	–	0	1,454	36	–	20,952	25,114
Vilas	–	12	156	–	–	–	4	68	27,018	24	2,101	81	–	4	767	38	–	35,991	52,550
Total	–	1,898	7,026	–	95	48	70	325	117,594	717	25,480	2,092	–	21	14,245	2,075	–	263,395	345,936
Northwest																			
Ashland	–	4	499	–	–	–	0	1	8,318	23	2,239	412	–	0	1,728	166	–	19,501	24,957
Barron	2	–	181	–	1	–	2	–	7,346	4	2,921	990	–	–	440	19	–	14,199	16,974
Bayfield	–	–	510	–	6	–	1	51	17,423	24	3,589	143	–	1	758	49	–	29,711	44,113
Burnett	–	–	21	–	–	–	–	0	4,821	–	517	100	–	–	31	2	–	5,951	14,343
Douglas	–	–	85	–	–	–	–	113	14,619	–	602	19	–	–	69	7	–	18,474	33,966
Iron	–	37	396	–	–	–	3	22	11,532	37	700	102	–	3	709	268	–	20,189	28,207
Polk	–	–	95	–	–	–	–	6	4,109	12	2,124	420	–	–	184	3	–	7,702	9,968
Price	–	2	612	–	1	–	3	6	11,386	16	1,188	163	–	3	745	142	–	21,518	26,768
Rusk	50	1	615	–	1	–	23	3	13,220	10	3,641	416	–	1	812	86	–	24,108	26,070
Sawyer	–	1	1,175	–	5	–	0	0	17,722	30	3,622	385	–	0	1,607	170	–	35,675	44,525
Taylor	–	8	396	–	1	–	23	1	6,028	23	1,054	120	–	1	568	290	–	12,681	14,541
Washburn	13	3	236	–	3	–	0	0	12,839	2	2,893	663	–	0	498	14	–	19,569	27,843
Total	65	55	4,821	–	17	–	56	202	129,365	178	25,088	3,935	–	10	8,148	1,215	–	229,278	312,275

Southeast																			
Brown	–	30	92	–	5	–	100	27	181	29	310	163	–	–	48	18	–	1,396	1,902
Calumet	–	22	58	–	–	–	3	–	4	–	85	114	–	–	58	3	–	681	791
Columbia	5	–	73	–	6	–	5	–	199	300	1,526	997	–	–	35	38	–	3,430	4,053
Dane	5	–	23	–	–	19	5	–	18	104	889	913	–	–	73	51	6	2,280	2,329
Dodge	0	–	136	–	–	0	–	–	4	26	425	165	–	5	140	28	–	1,117	1,134
Door	–	128	231	–	–	–	47	9	89	1	221	–	–	–	61	5	–	1,692	2,008
Fond Du Lac	1	27	60	–	2	9	0	0	249	77	346	271	–	0	79	27	–	1,740	1,787
Green	–	–	62	–	–	16	–	–	8	27	259	311	–	–	33	58	–	897	916
Green Lake	–	–	24	–	12	–	2	–	18	12	225	128	–	–	19	22	2	614	854
Jefferson	2	–	175	–	1	18	–	–	573	26	110	140	–	8	70	30	–	1,233	1,307
Kenosha	–	–	2	–	–	–	–	–	–	15	24	49	–	–	5	–	–	96	123
Kewaunee	–	213	295	–	–	–	49	24	95	6	89	16	–	3	100	11	–	2,304	2,768
Manitowoc	1	92	270	–	–	–	40	9	79	31	583	59	–	–	322	12	–	3,575	4,036
Milwaukee	–	–	2	–	–	1	–	–	–	–	3	–	–	–	–	–	–	6	6
Outagamie	–	46	145	–	–	–	47	0	556	10	144	117	–	10	100	5	–	2,002	2,218
Ozaukee	–	–	82	–	–	–	–	–	1	–	211	63	–	–	25	–	–	473	604
Racine	–	–	9	–	–	–	–	–	–	4	80	64	–	8	1	22	–	204	307
Rock	2	–	23	–	3	40	2	–	1	200	363	480	–	–	11	45	–	1,263	1,268
Sheboygan	–	77	256	–	11	–	–	–	53	17	440	145	–	–	144	13	–	1,967	2,937
Walworth	–	–	2	–	2	–	1	–	–	2	6	–	–	–	7	2	–	73	233
Washington	6	11	156	–	0	–	0	–	18	6	544	151	–	3	138	39	–	1,708	1,805
Waukesha	0	9	67	–	–	3	–	–	9	–	296	68	–	3	25	2	–	692	1,102
Winnebago	–	–	41	–	–	–	0	0	64	–	90	19	–	0	52	–	–	381	455
Total	22	655	2,283	–	42	105	300	70	2,220	895	7,269	4,434	–	42	1,545	429	8	29,826	34,942
Southwest																			
Buffalo	8	–	43	–	1	7	145	–	1,894	224	6,206	2,417	–	2	595	70	–	12,341	12,501
Crawford	34	–	247	–	–	365	24	–	109	137	4,695	1,730	–	–	453	154	77	9,737	9,750
Dunn	4	0	193	–	2	–	–	–	1,434	70	3,543	713	–	–	248	16	–	7,886	11,569
Grant	14	–	191	–	1	101	221	–	210	38	3,399	1,260	–	41	427	153	7	7,016	7,587
Iowa	22	–	102	–	1	204	9	–	146	76	2,725	1,580	–	–	132	80	17	5,518	5,798
La Crosse	22	–	31	–	14	11	4	–	200	178	3,558	1,067	1	–	152	130	–	6,431	6,837
Lafayette	–	–	8	–	–	6	–	–	–	6	99	127	–	–	14	–	–	266	268
Pepin	10	–	55	–	2	5	42	1	694	20	1,915	690	–	0	176	17	–	4,124	4,634
Pierce	1	5	120	–	2	–	38	–	479	15	2,220	497	–	–	416	162	–	6,174	6,218
Richland	14	–	280	–	2	67	5	0	433	72	3,227	1,281	–	0	436	132	145	8,443	8,864
Sauk	5	–	249	3	2	9	–	0	1,313	156	4,856	1,923	–	–	440	162	10	10,587	12,646
St Croix	–	–	19	–	–	–	9	–	789	–	747	257	–	–	149	19	–	2,420	4,446
Trempealeau	2	–	47	–	3	0	131	–	1,049	148	4,501	1,305	–	9	108	94	–	7,989	9,481
Vernon	2	–	206	–	3	27	23	1	374	91	3,454	1,302	–	5	313	96	10	7,950	9,099
Total	137	5	1,790	3	31	801	652	2	9,125	1,231	45,147	16,149	1	58	4,059	1,283	266	96,882	109,699
All units	224	2,679	19,557	3	266	981	1,145	603	298,794	3,407	161,267	42,757	3	133	34,229	6,158	274	780,734	1,022,170

0=Less than 50 cubic feet.

Rows and columns may not sum due to rounding.

Table 25.--Harvest residues generated by industrial roundwood harvesting by Forest Survey Unit, county, and species group, Wisconsin, 1999

(In thousand cubic feet) [1]

Unit and county	Balsam fir	Red-cedar	Tama-rack	Spruce	Jack pine	Red pine	White pine	Other pine	N. white-cedar	Hemlock	Total softwoods	Soft maple	Hard maple	Paper birch	Yellow birch	Hickory	Hack-berry	Beech
Central																		
Adams	10	–	2	2	618	438	106	–	–	–	1,176	37	35	13	1	0	–	–
Chippewa	0	–	1	7	19	205	27	–	–	–	259	225	179	126	11	5	–	0
Clark	2	–	7	11	138	157	173	–	–	1	489	385	307	245	20	2	–	0
Eau Claire	–	–	–	1	153	221	33	–	–	–	408	120	79	64	5	1	0	0
Jackson	1	–	3	12	460	397	278	–	–	–	1,151	190	146	112	11	10	–	–
Juneau	1	–	1	8	449	263	112	–	–	–	835	108	70	21	3	8	–	–
Marathon	12	–	1	63	23	136	52	–	0	25	312	930	904	186	102	3	–	8
Marquette	–	–	0	–	39	193	23	–	–	–	256	11	5	3	0	0	–	–
Monroe	–	–	4	4	189	255	147	–	–	–	599	140	155	33	2	17	–	–
Portage	5	–	2	24	143	313	88	–	–	2	578	209	83	34	6	3	–	–
Waupaca	1	–	–	4	4	187	65	–	4	2	267	209	145	32	16	2	–	6
Waushara	–	–	–	4	40	520	47	–	–	–	610	13	22	7	1	2	–	–
Wood	1	–	–	13	90	167	78	–	–	–	349	147	158	35	6	3	–	0
Total	34	–	21	152	2,366	3,452	1,229	–	4	31	7,289	2,725	2,289	911	182	57	0	15
Northeast																		
Florence	32	–	1	16	44	70	19	–	0	84	266	335	482	204	53	–	–	35
Forest	210	–	13	265	82	250	60	–	9	72	961	524	1,184	491	116	0	–	26
Langlade	240	–	14	75	64	170	20	0	0	8	591	998	1,742	634	136	9	–	36
Lincoln	172	–	24	97	72	150	27	–	0	16	558	572	707	404	67	3	–	7
Marinette	114	–	12	59	524	513	90	–	35	19	1,367	467	589	358	87	5	–	36
Menominee	113	–	18	80	153	112	507	–	33	151	1,165	449	695	126	68	1	–	46
Oconto	51	–	4	93	48	211	49	–	29	3	488	611	368	157	22	0	–	132
Oneida	283	–	81	475	327	897	266	–	1	12	2,343	278	426	539	36	–	–	0
Shawano	20	–	1	5	7	212	70	–	47	32	395	267	694	99	50	3	–	16
Vilas	102	–	24	119	823	590	268	5	2	5	1,938	222	360	535	27	–	–	5
Total	1,338	–	192	1,284	2,145	3,175	1,374	5	156	403	10,072	4,724	7,248	3,548	664	20	–	339
Northwest																		
Ashland	109	–	35	224	31	215	54	–	1	2	670	294	501	396	44	1	–	2
Barron	0	–	0	10	71	102	68	–	–	–	252	136	149	56	2	4	0	–
Bayfield	122	–	1	23	813	662	158	–	0	2	1,781	444	516	744	33	1	–	–
Burnett	9	–	–	3	902	241	32	–	–	–	1,186	37	30	48	1	–	–	–
Douglas	523	–	66	135	1,067	689	43	–	0	–	2,522	181	92	577	3	–	–	–
Iron	114	–	7	101	437	212	24	–	–	10	904	407	564	271	64	–	–	15
Polk	1	–	12	4	314	24	5	–	–	–	360	53	59	43	1	0	–	–
Price	206	–	71	117	92	201	25	–	1	18	731	476	676	642	54	2	–	1
Rusk	9	–	25	128	5	91	19	–	–	0	277	367	413	255	22	9	6	0
Sawyer	142	–	9	198	136	447	91	–	–	2	1,024	759	948	826	70	0	–	1
Taylor	87	–	23	55	1	70	13	–	–	7	255	374	341	259	40	1	–	3
Washburn	17	–	1	11	684	398	51	–	0	–	1,162	235	263	157	6	–	2	0
Total	1,338	–	249	1,009	4,552	3,351	582	–	2	41	11,124	3,764	4,553	4,274	340	18	8	21

Southeast																			
Brown	–	–	–	–	1	35	3	–	1	1	41	25	14	2	0	6	–	4
Calumet	–	–	–	0	–	6	2	–	0	–	8	24	14	–	–	1	–	3
Columbia	–	–	–	6	4	55	13	–	–	–	79	25	5	4	0	4	1	–
Dane	–	–	–	0	–	3	1	–	0	–	5	1	10	–	–	8	1	–
Dodge	–	–	–	–	–	0	1	–	0	–	1	12	9	0	0	1	0	–
Door	–	–	1	–	3	6	9	–	10	1	30	33	47	22	7	0	–	16
Fond Du Lac	–	–	–	0	–	4	0	–	0	–	4	38	45	8	–	1	0	3
Green	–	–	–	–	–	0	2	–	–	–	2	4	8	–	–	1	–	–
Green Lake	0	–	–	1	–	19	7	–	0	–	27	7	9	0	0	0	–	–
Jefferson	–	–	–	2	1	5	3	–	–	–	10	9	1	–	–	0	0	–
Kenosha	–	–	–	–	–	1	3	–	–	–	3	0	–	–	–	–	–	–
Kewaunee	–	–	1	1	–	15	5	–	13	6	41	95	49	19	3	0	–	27
Manitowoc	–	–	–	4	0	11	14	–	7	3	40	68	139	7	11	3	0	12
Milwaukee	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Outagamie	–	–	–	7	–	6	5	–	9	1	27	87	28	21	1	1	–	6
Ozaukee	–	–	–	14	–	4	3	–	0	–	21	8	1	1	0	1	–	–
Racine	–	–	–	0	1	8	5	–	–	–	14	1	1	0	0	0	–	–
Rock	–	–	–	0	–	0	0	–	0	–	0	1	2	–	–	8	0	–
Sheboygan	–	–	–	7	–	61	6	–	5	–	78	29	54	2	1	2	–	10
Walworth	–	–	–	0	1	14	6	–	–	–	21	–	5	–	–	–	–	–
Washington	–	–	–	1	–	8	4	–	0	–	12	32	34	4	0	0	1	1
Waukesha	–	–	–	2	2	36	12	–	0	–	52	13	11	1	0	1	0	1
Winnebago	–	–	–	9	–	5	0	–	–	–	14	11	19	8	0	–	–	–
Total	0	–	2	54	13	302	102	–	46	13	531	523	505	98	24	40	3	83
Southwest																			
Buffalo	–	–	–	9	0	10	3	–	–	–	22	48	15	9	1	32	1	–
Crawford	–	–	–	–	–	1	1	–	–	–	2	54	105	1	0	27	4	–
Dunn	–	–	–	9	28	254	42	–	–	–	332	84	108	18	2	3	1	0
Grant	–	–	–	–	4	66	4	–	–	–	74	27	58	1	0	18	2	–
Iowa	–	–	–	–	0	13	17	–	–	–	30	14	25	0	–	8	3	–
La Crosse	–	–	–	12	2	34	8	–	–	–	56	27	61	10	–	25	3	–
Lafayette	–	–	–	–	–	–	0	–	–	–	0	0	0	0	–	0	–	–
Pepin	–	–	–	–	0	22	20	–	–	–	42	22	46	9	0	3	1	–
Pierce	–	1	–	–	–	3	1	–	–	–	5	60	224	3	10	5	0	2
Richland	–	–	–	–	1	40	12	–	–	–	53	59	178	9	–	32	2	–
Sauk	–	1	–	5	67	157	32	–	–	–	262	97	73	12	1	19	1	–
St Croix	2	2	–	26	48	119	41	–	–	–	239	9	42	7	0	1	–	–
Trempealeau	–	–	–	7	7	122	36	–	–	–	173	34	35	23	1	9	0	–
Vernon	131	–	–	3	0	33	28	–	–	–	195	32	173	9	–	24	0	–
Total	133	4	–	71	158	875	245	–	–	–	1,485	569	1,143	112	14	207	17	2
All units	2,843	4	464	2,570	9,232	11,156	3,532	5	208	487	30,500	12,304	15,738	8,943	1,225	343	28	460

(Table 25 continued on next page)

(Table 25 continued)

Unit and county	Ash	Honey-locust	Butter-nut	Black walnut	Cotton-wood	Balsam poplar	Aspen	Black cherry	Other cherry	Red oak	White oak	Black locust	Willow	Bass-wood	Elm	Other hardwoods	Total hardwoods	All species
Central																		
Adams	16	–	1	–	–	–	303	0	–	592	194	–	–	32	1	–	1,224	2,400
Chippewa	48	–	0	–	1	0	711	4	–	717	115	–	0	89	16	–	2,248	2,508
Clark	95	–	0	–	0	0	1,283	4	–	663	185	–	0	74	28	–	3,293	3,783
Eau Claire	24	–	0	–	0	0	288	5	–	602	152	–	0	13	6	–	1,360	1,767
Jackson	50	–	2	–	1	0	461	6	–	1,304	479	–	0	43	14	–	2,829	3,980
Juneau	39	–	1	–	–	–	149	4	–	631	260	0	–	23	7	–	1,325	2,159
Marathon	251	–	0	1	0	1	1,480	6	–	424	39	–	0	408	259	–	5,003	5,315
Marquette	3	–	0	–	–	–	25	0	–	93	51	–	–	1	3	–	195	451
Monroe	28	–	0	–	–	0	144	11	–	1,199	336	–	–	20	14	–	2,101	2,701
Portage	34	–	2	–	0	0	306	2	–	263	57	–	0	41	4	–	1,043	1,621
Waupaca	65	–	2	1	2	0	284	1	–	231	99	–	0	64	22	–	1,181	1,448
Waushara	6	–	–	–	–	–	38	–	–	193	88	–	–	9	0	–	380	990
Wood	44	–	1	–	0	0	698	2	–	357	118	–	0	44	6	–	1,619	1,968
Total	702	–	10	2	4	1	6,171	47	–	7,270	2,173	0	1	861	379	–	23,800	31,089
Northeast																		
Florence	39	–	–	–	0	12	1,126	7	51	81	3	–	0	149	8	50	2,635	2,901
Forest	206	–	1	–	0	8	1,367	20	34	146	10	–	0	323	84	33	4,574	5,535
Langlade	369	–	0	1	1	3	1,864	12	41	333	22	–	1	572	216	41	7,032	7,622
Lincoln	189	–	0	–	2	4	1,774	0	–	190	32	–	2	224	245	–	4,423	4,981
Marinette	147	–	–	0	0	28	2,393	13	36	500	18	–	0	312	34	35	5,058	6,425
Menominee	82	–	6	–	2	10	896	9	19	328	24	–	0	164	30	19	2,974	4,139
Oconto	71	–	–	–	3	10	1,489	0	15	315	88	–	0	89	50	15	3,437	3,925
Oneida	99	–	–	–	1	2	1,414	6	0	194	21	–	1	152	29	0	3,199	5,542
Shawano	165	–	5	2	1	0	703	15	–	476	29	–	0	191	8	–	2,725	3,119
Vilas	51	–	–	–	1	26	2,339	3	7	237	15	–	1	238	15	7	4,088	6,027
Total	1,418	–	12	3	12	104	15,366	85	202	2,800	262	–	5	2,413	719	201	40,145	50,217
Northwest																		
Ashland	109	–	–	–	0	0	1,283	3	–	283	83	–	0	210	64	–	3,274	3,944
Barron	30	–	0	–	0	–	789	0	–	304	104	–	–	54	3	–	1,631	1,884
Bayfield	115	–	1	–	0	19	2,727	3	–	401	20	–	0	134	17	–	5,174	6,956
Burnett	8	–	–	–	–	0	696	–	–	73	14	–	–	7	1	–	916	2,102
Douglas	30	–	–	–	–	45	2,256	–	–	69	3	–	–	23	3	–	3,282	5,805
Iron	101	–	–	–	0	3	2,011	4	17	93	13	–	0	127	107	17	3,815	4,719
Polk	19	–	–	–	–	2	722	1	–	205	44	–	–	26	1	–	1,178	1,537
Price	163	–	0	–	1	2	1,655	2	5	176	29	–	1	179	57	–	4,120	4,850
Rusk	122	–	0	–	1	1	1,571	1	–	376	47	–	0	139	24	–	3,355	3,632
Sawyer	274	–	1	–	0	0	2,619	3	–	415	47	–	0	280	65	–	6,308	7,332
Taylor	107	–	0	–	1	1	917	3	2	132	16	–	0	104	111	–	2,412	2,667
Washburn	63	–	0	–	0	0	1,863	0	–	325	74	–	0	81	6	–	3,076	4,238
Total	1,141	–	2	–	4	73	19,110	21	24	2,851	494	–	2	1,363	459	17	38,542	49,666

Southeast																			
Brown	12	–	1	–	13	4	22	4	–	32	17	–	–	6	2	–	163	203
Calumet	7	–	–	–	0	–	0	–	–	9	12	–	–	7	0	–	78	86
Columbia	10	–	1	–	1	–	26	38	–	171	105	–	–	5	5	–	400	479
Dane	3	–	–	2	1	–	2	13	–	92	94	–	–	9	6	1	243	248
Dodge	17	–	–	0	–	–	0	3	–	44	17	–	1	18	4	–	125	127
Door	30	–	–	–	6	1	11	0	–	22	–	–	–	8	1	–	204	234
Fond Du Lac	9	–	0	1	0	0	34	10	–	39	29	–	0	15	3	–	236	240
Green	8	–	–	2	–	–	1	3	–	27	32	–	–	4	7	–	98	101
Green Lake	3	–	1	–	0	–	3	2	–	25	13	–	–	2	3	0	69	96
Jefferson	22	–	0	2	–	–	58	3	–	12	15	–	1	9	4	–	135	145
Kenosha	0	–	–	–	–	–	–	2	–	2	5	–	–	1	–	–	10	14
Kewaunee	38	–	–	–	6	3	12	1	–	9	2	–	0	13	1	–	278	319
Manitowoc	35	–	–	–	5	1	9	4	–	60	6	–	–	41	2	–	402	442
Milwaukee	0	–	–	0	–	–	–	–	–	0	–	–	–	–	–	–	1	1
Outagamie	21	–	–	–	6	0	68	1	–	18	13	–	1	15	1	–	287	314
Ozaukee	10	–	–	–	–	–	0	–	–	22	6	–	–	3	–	–	53	74
Racine	1	–	–	–	–	–	–	0	–	8	7	–	1	0	3	–	23	37
Rock	3	–	0	5	0	–	0	25	–	38	50	–	–	1	6	–	140	140
Sheboygan	32	–	1	–	–	–	6	2	–	46	15	–	–	18	2	–	220	298
Walworth	0	–	0	–	0	–	–	0	–	1	–	–	–	1	0	–	8	29
Washington	20	–	0	–	0	–	2	1	–	56	16	–	0	18	5	–	192	204
Waukesha	9	–	–	0	–	–	2	–	–	31	7	–	0	3	0	–	80	132
Winnebago	7	–	–	–	0	0	12	–	–	13	3	–	0	11	–	–	85	99
Total	298	–	5	13	38	9	269	112	–	777	464	–	5	208	55	1	3,532	4,062
Southwest																			
Buffalo	7	–	0	1	17	–	207	28	–	640	253	–	0	52	9	–	1,321	1,343
Crawford	31	–	–	46	3	–	13	17	–	478	179	–	–	57	19	10	1,044	1,045
Dunn	28	–	0	–	–	–	197	8	–	368	74	–	–	33	3	–	927	1,259
Grant	24	–	0	13	28	–	25	5	–	353	131	–	5	54	19	1	763	838
Iowa	13	–	0	26	1	–	17	9	–	281	164	–	–	17	10	2	590	620
La Crosse	5	–	2	1	1	–	27	18	–	366	131	0	–	19	16	–	713	769
Lafayette	1	–	–	1	–	–	–	1	–	10	13	–	–	2	–	–	29	29
Pepin	10	–	0	1	3	0	88	3	–	202	73	–	0	26	2	–	490	532
Pierce	28	–	0	–	5	–	64	2	–	231	52	–	–	53	59	–	799	804
Richland	37	–	0	8	1	0	56	9	–	335	133	–	0	60	17	18	956	1,009
Sauk	35	0	0	1	–	0	140	19	–	518	200	–	–	57	21	1	1,196	1,458
St Croix	4	–	–	–	1	–	123	–	–	79	27	–	–	19	3	–	314	553
Trempealeau	8	–	0	0	16	–	116	18	–	471	136	–	1	14	12	–	895	1,068
Vernon	26	–	0	3	3	0	50	11	–	358	136	–	1	44	12	1	884	1,078
Total	258	0	4	101	78	1	1,124	148	–	4,690	1,701	0	8	508	204	34	10,921	12,406
All units	3,818	0	34	120	136	189	42,039	413	226	18,388	5,094	0	21	5,353	1,816	252	116,940	147,440

0=Less than 50 cubic feet.

Rows and columns may not sum due to rounding.

Table 26.-- Residue at primary wood-using mills by type of material, type of use, and Forest Survey Unit, Wisconsin, 1999

(In thousands of tons, green weight)

Survey Unit and type of use	Total		Wood residue					
			Coarse [1]		Fine [2]		Bark	
	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
Central								
Fiber products	16.76	120.60	16.08	105.96	0.68	14.64	–	3.59
Charcoal	–	0.62	–	–	–	0.62	–	–
Industrial fuel - mill	79.01	101.26	0.07	11.23	78.94	90.03	186.42	258.74
Industrial fuel - sold	0.89	9.91	0.27	4.43	0.61	5.48	1.54	59.39
Domestic fuel	5.34	17.20	5.34	17.20	0.00	0.00	0.38	10.46
Miscellaneous [3]	8.99	37.57	0.59	1.13	8.40	36.44	10.55	41.05
Not used	5.55	3.91	0.12	0.03	5.43	3.89	6.20	14.01
Total	116.54	291.07	22.47	139.97	94.07	151.10	205.10	387.24
Northeast								
Fiber products	48.05	243.06	47.87	237.38	0.18	5.68	–	–
Charcoal	–	13.22	–	–	–	13.22	–	–
Industrial fuel - mill	20.98	63.08	0.14	0.72	20.84	62.36	26.23	109.01
Industrial fuel - sold	1.20	25.99	0.59	9.31	0.61	16.68	0.57	32.81
Domestic fuel	1.74	22.04	1.74	21.74	0.00	0.30	0.56	4.58
Miscellaneous [3]	4.38	81.67	0.53	19.76	3.86	61.91	3.93	47.35
Not used	1.22	1.52	0.33	0.78	0.88	0.74	0.81	1.03
Total	77.57	450.59	51.20	289.70	26.37	160.89	32.11	194.77
Northwest								
Fiber products	2.94	92.28	2.92	76.08	0.02	16.20	0.86	3.63
Charcoal	–	1.72	–	–	–	1.72	–	–
Industrial fuel - mill	0.48	61.56	0.14	18.38	0.35	43.18	1.05	78.45
Industrial fuel - sold	3.83	46.84	1.07	12.90	2.77	33.94	2.45	79.16
Domestic fuel	1.31	8.26	1.31	8.11	0.01	0.15	0.52	0.94
Miscellaneous [3]	1.90	49.35	0.24	20.43	1.66	28.92	0.37	11.43
Not used	3.15	4.88	2.06	2.71	1.08	2.17	0.75	1.02
Total	13.61	264.89	7.74	138.61	5.88	126.28	6.01	174.62
Southeast								
Fiber products	1.11	34.91	1.11	34.91	–	–	–	–
Charcoal	–	3.71	–	–	–	3.71	–	–
Industrial fuel - mill	13.53	6.93	0.01	0.17	13.52	6.76	32.53	13.76
Industrial fuel - sold	0.00	10.43	0.00	0.11	–	10.32	–	11.07
Domestic fuel	0.50	4.43	0.49	4.40	0.01	0.03	0.13	1.49
Miscellaneous [3]	2.58	14.95	0.80	3.68	1.78	11.27	1.41	7.49
Not used	0.26	1.56	0.18	1.08	0.07	0.48	0.32	5.51
Total	17.99	76.91	2.60	44.35	15.39	32.56	34.39	39.33

Southwest								
Fiber products	0.72	131.70	0.72	129.75	–	1.94	–	–
Industrial fuel - mill	0.25	22.40	0.25	11.22	–	11.18	–	–
Industrial fuel - sold	0.02	9.14	0.02	3.98	–	5.16	0.87	0.80
Domestic fuel	0.19	19.55	0.18	19.16	0.00	0.38	0.07	1.60
Miscellaneous [3]	1.71	60.85	0.41	10.71	1.30	50.14	0.73	69.63
Not used	0.10	1.84	0.08	1.45	0.02	0.39	0.04	0.26
Total	2.99	245.47	1.67	176.29	1.32	69.19	1.71	72.29
All Units								
Fiber products	69.59	622.55	68.71	584.08	0.87	38.47	0.86	7.22
Charcoal	–	19.27	–	–	–	19.27	–	–
Industrial fuel - mill	114.25	255.24	0.61	41.74	113.64	213.50	246.24	459.96
Industrial fuel - sold	5.94	102.30	1.95	30.73	3.99	71.57	5.43	183.23
Domestic fuel	9.09	71.48	9.06	70.62	0.02	0.86	1.66	19.06
Miscellaneous [3]	19.55	244.39	2.55	55.71	17.00	188.68	17.00	176.95
Not used	10.27	13.71	2.78	6.05	7.50	7.66	8.13	21.83
Total	228.70	1,328.94	85.67	788.92	143.03	540.01	279.32	868.25

0=less than 50 tons.

[1] *Suitable for chipping such as slabs, edgings, veneer cores, etc.*

[2] *Not suitable for chipping such as sawdust, veneer clippings, etc.*

[3] *Livestock bedding, mulch, small dimension, and specialty items.*

Rows and colums may not sum due to rounding.

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2003. **Wisconsin timber industry—an assessment of timber product output and use, 1999.** Resour. Bull. NC-218. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 91 p.

Discusses recent Wisconsin forest industry trends; production and receipts of pulpwood; and production of saw logs, veneer logs, and other timber products in 1999. Reports on logging residue, on wood and bark residue generated at primary wood-using mills, and on disposition of mill residues.

KEY WORDS: Industrial roundwood, pulpwood, saw logs, veneer logs, residue

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